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Assessing the mental health and wellbeing of the Emergency Responder community in the UK





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Foreword

Even prior to the COVID-19 pandemic, it was clear that we owe an enormous debt of gratitude to our emergency services. Emergency responders have chosen careers where they put their lives on the line on a regular basis. The current crisis has put that personal sacrifice and willingness to put the interests of others above their own in sharp relief.

The research contained within this report was conducted prior to the onset of the COVID-19 crisis. It was born out of a recognition that, even in normal times, the work of the emergency responder community places tremendous demands on their mental health and wellbeing. They are regularly exposed to trauma and violence and coping with distressing experiences is an all too common aspect of their working lives. So too is being separated from their families and working long, unpredictable and antisocial hours. Given these strains, it is vital that all necessary steps are taken to safeguard their wellbeing and mental health.

The Royal Foundation is committed to doing all it can to support the emergency responder community. The Duke of Cambridge, having himself served as an air ambulance pilot, knows all too well the demands this work entails. Given the need to design our work in this area against a robust evidence base, and having

identified an absence of existing mental health literature focused on emergency responders, we commissioned King's College London and The Open University to undertake this study. I am grateful to the team involved and delighted with the quality of the report.

This research carries a stark message that we need to improve significantly the support provided to emergency responders. From pervasive feelings of stigma around the issue of mental health to a support structure that is sometimes difficult to navigate, it is clear that there is much work that needs to be done.

We thank our 999 teams for their service, and I hope that the emergency services and the charity sector, which plays a critical role in providing support, will utilise these research findings to inform their own programmes. For our part, in addition to the immediate task of supporting the frontline community as they respond to the COVID-19 crisis, we will continue to do all we can to bring about sustainable, positive change to protect the wellbeing of this vital community.

Jason Knauf
CEO, The Royal Foundation



THE ROYAL FOUNDATION



List of Abbreviations

AACE	Association of Ambulance Chief Executives	MH	Mental Health
AUDIT	Alcohol Use Disorders Identification Test	MHFA	Mental Health First Aid
BDI	Beck Depression Inventory	MPSS-SR	Modified PTSD Symptoms Scale Self-Report
BL	Blue Light	NARPO	National Association of Retired Police Officers
BLWP	Blue Light Wellbeing Programme	NfP	Non-for-Profit
BME	Black and Minority Ethnic	NICE	National Institute for Health and Care Excellence
CBT	Cognitive Behavioural Therapy	NPWS	National Police Wellbeing Service
CFT	Compassion Fatigue Training	OH	Occupational Health
CID	Critical Incident Debriefing	ONS	Office for National Statistics
CISD	Critical Incident Stress Debriefing	OU	Open University
CMD	Common Mental Disorder	PCL-C	Posttraumatic Checklist – Civilian
CPD	Continuous Professional Development	PDS	Posttraumatic Diagnostic Scale
EAP	Employee Assistance Program	PFA	Psychological First Aid Course
EMT	Emergency Medical Technician	PSS-I	Posttraumatic Stress Disorder Symptom Scale Interview
ER	Emergency Responder	PTG	Posttraumatic Growth
GAD	Generalised Anxiety Disorder	PTSD	Posttraumatic Stress Disorder
GHQ	General Health Questionnaire	RCT	Randomised Control Trial
HADS	Hospital Anxiety and Depression Scale	RNLI	Royal National Lifeboat Institute
HMCG	Her Majesty's Coastguard	STS	Secondary Traumatic Stress
HMICFRS	Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services	TASC	The Ambulance Staff Charity
IPV	Intimate Partner Violence	TF-CBT	Trauma Focused Cognitive Behavioural Therapy
IBS	Irritable Bowel Syndrome	TRF	The Royal Foundation
ICAC	Internet Crimes Against Children	TRiM	Trauma Risk Management
IES	Impact of Events Scale	TSQ	Trauma Screening Questionnaire
ITQ	International Trauma Questionnaire	WB	Wellbeing
KGL	King's College London	WFC	Work Family Conflict
KCMHR	King's Centre for Military Health Research	WTC	World Trade Center
LGBTQ	Lesbian, Gay, Bisexual, Transgender and Queer		

Executive Summary

King's Centre for Military Health Research, *Institute of Psychiatry, Psychology & Neuroscience, King's College London*

King's College London (KCL) is dedicated to advancing knowledge, learning and understanding for the public good. The King's Centre for Military Health Research (KCMHR) is a research group within The Institute of Psychiatry, Psychology & Neuroscience (IoPPN) at KCL. The IoPPN is at the forefront of research that seeks to understand, prevent and treat mental illness and other conditions that affect the brain. Making a difference is at the heart of the IoPPN's research through enhancing patient care, impacting policy change, and sharing knowledge through education.

KCMHR is the leading civilian UK centre of excellence for military health research. Independent of the UK Ministry of Defence and chain of command, the research has provided evidence on the health and wellbeing of serving and ex-serving personnel and their families. KCMHR draws upon the experience of a multi-disciplinary team, using both quantitative and qualitative methods in occupational epidemiology and psychiatry, and is led by Professor Sir Simon Wessely and Professor Nicola Fear. KCMHR also conducts research with other high-risk occupational groups such as emergency responders, post-disaster workers, humanitarian workers, and transport personnel.

Findings from the studies conducted at KCMHR are regularly published in high-impact journals such as the British Medical Journal (BMJ) and the Lancet series. KCMHR strive to ensure that their research is disseminated widely throughout academia, government, medical professionals, policy makers, charities, and the Armed Forces community. KCMHR's research has contributed to changes in policy and services regarding serving and ex-serving personnel and their families.

Centre for Policing Research and Learning *The Open University*

The Centre for Policing Research and Learning (CPRL) is a long-term strategic collaboration between The Open University and 21 UK police forces and agencies, with an international, national and local reputation in policing research, education and knowledge exchange. The purpose of the Centre is to create and use knowledge through both research and education to improve policing for the public good. In this way, the Centre contributes to the work of police agencies as they adapt to a changing policing landscape, with its greater emphasis on evidence-based practice.

The CPRL partnership is supported by over 50 academics from across all faculties at The Open University.

Academics and police work in partnership to create and action a strategic agenda of knowledge creation and application to improve policing through evidence-based practice, with current themes of: investigation, community and vulnerability; digitally enabled policing; leadership, management and organisation; and health, wellbeing and resilience. Academics and representatives from all 21 police partners jointly decide on the programme of work undertaken by the Centre, bringing together the key knowledge, skills and experience of academics with those of police practitioners in a co-research approach. Police partners range from large territorial forces (e.g. Metropolitan Police Service and Greater Manchester Police) to smaller forces (e.g. Gwent) and including specialist national police agencies such as the National Crime Agency and British Transport Police.

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Background

Those working in emergency responder (ER) roles may be at an increased risk of adverse mental health and wellbeing outcomes. The ER group, sometimes referred to as 'First Responders', is a broad category that includes those in the traditional 'blue light' emergency services and in volunteer organisations, such as Search and Rescue and the Royal National Lifeboat Institute (RNLI). Regardless of the role type, the increased risk to mental health and wellbeing may be due to the nature of their work, which involves frequent exposure to potentially distressing situations, accident scenes, and threats to safety for themselves and others. These high stress activities may be compounded by intense workplace stressors, such as excessive workloads, staffing cuts, unpredictable work, inadequate support and increasing social accountability.

Initial scoping work by Mind looked at wellbeing across ERs and reported a potential elevated risk of psychological issues compared to the general population, alongside a reluctance to seek support for their symptoms. However, there is a general dearth of research in this area. There is a lack of collated data concerning ERs mental health and wellbeing, and little is known about the nature and effectiveness of mental health and wellbeing support that is available to ERs and their families.

This project addresses these concerns by identifying mental health and wellbeing research (completed and ongoing) across the emergency services, volunteer roles and their families, through a systematic review of UK, international and grey literature. In tandem, a comprehensive landscape review was conducted to assess the current mental health and wellbeing-related service provision and practice across the UK through stakeholder interviews and desktop-based research which investigated information available on the internet.

Our project was guided by the following six questions. The main findings are presented below.

1. What is the most meaningful or useful terminology when discussing emergency services, volunteer and first responder roles?

- ♦ Stakeholders reported that the term ‘First Responder’ was not meaningful or useful in a UK context. The term ‘Emergency Responders’ was suggested as an expansive alternative when assessing mental health and wellbeing referring to first responders, operational staff, support staff, call operators, and other ‘at risk’ emergency service personnel across the ‘blue light’, volunteer and search and rescue services (i.e. fire, ambulance, police, mountain rescue, RNLI, HM coastguard).

2. What is the evidence concerning the most prevalent mental health and wellbeing problems in UK emergency responders?

- ♦ The systematic review found only one study that used a representative sample* of police in England and Wales. All other ER studies used non-representative samples.
- ♦ The studies identified suggested ERs’ experience specific occupational stressors associated with poor mental health and wellbeing outcomes. On average, the evidence indicated that ERs may experience more mental health problems, such as depression, anxiety and PTSD, compared to the UK general population. However, due to methodological concerns, it was difficult to draw robust conclusions.
- ♦ In both the systematic review and stakeholder interviews, organisational stressors (such as excessive workloads and lack of senior support) were found to negatively impact ERs’ mental health and wellbeing, more than critical incident stressors (such as potentially traumatic accident scenes).
- ♦ Organisational support and good leadership were associated with improved wellbeing, morale and retention in ER studies.

3. What is the evidence concerning the mental health and wellbeing needs of emergency responder families in the UK?

- ♦ Only one UK study fitted the search criteria in the ER family systematic review.
- ♦ International research identified pressures on ER spouses and children, such as the impact of shift work, lone parenting, concerns for ER safety and ER work stress/trauma that negatively affected spouse’s and children’s psychological wellbeing and family functioning.

4. What are the current limitations and gaps in our knowledge about the mental health and wellbeing of UK emergency responders and their families?

- ♦ Studies used diverse and varied measures of mental health and wellbeing outcomes which made comparisons difficult between studies.
- ♦ Non-representative samples constrained the generalisability of findings to the broader ER populations.
- ♦ Study designs generally looked at groups of people at a single point in time, therefore this limited understanding of long-term trends and causes.
- ♦ There were limited data assessing certain areas of mental health and wellbeing, including: suicide, self-harm, secondary traumatic stress, alcohol misuse, sleep, workplace bullying/discrimination, finance and debt, and positive mental health and wellbeing outcomes.
- ♦ Certain groups of ERs were underrepresented in the research studies, these included: retirees; Black, Minority and Ethnic (BME) groups, Lesbian, Gay, Bisexual, Transgender and Queer (LGBTQ) groups; volunteers; search and rescue; high risk roles; and more broadly ambulance and fire personnel.
- ♦ UK research does not assess what the potential problems or positive mental health and wellbeing outcomes are in ER families and therefore there is little understanding of their main support needs.

**A representative sample enables generalisations from study findings to the broader population of interest and is a group that closely matches the characteristics of its population as a whole.*

5. What is the current provision of services to support the mental health and wellbeing of emergency responders across different emergency services/volunteer roles in the UK, both in terms of practice-based initiatives and projects, and in terms of research?

- Since the Mind Blue Light Wellbeing Programme ended in 2019, there has been a substantial gap in large-scale national wellbeing provision for ERs.
- Overall, wellbeing provision varied widely by both region and service; however, a large amount of work was being carried out in this area.
- Stakeholders identified a number of wellbeing activities as ‘best practice’, including in-house wellbeing support and peer support models. However, some stakeholders were unable to identify any examples of ‘best practice’.
- The online landscape of information/support for ER mental health and wellbeing was vast and difficult to navigate in terms of volume, relevance of information, eligibility and access to practical support.
- Overall, the implementation of wellbeing provision has outpaced evaluation research. There was limited evidence assessing interventions with mixed outcomes in terms of their effectiveness for improving wellbeing.
- Identifying on-going research projects proved difficult and was primarily reliant on word of mouth.
- Several on-going projects/studies were identified assessing mental health and wellbeing in ERs, including the topics of transition, peer support and suicide prevention.

6. Are there barriers and facilitators associated with current service provision and are there gaps in mental health and wellbeing services or support?

- Overall, a number of potential barriers were identified in the systematic review and stakeholder interviews in relation to the organisational implementation of support services and ERs’ use of mental health and wellbeing support initiatives. Addressing and overcoming barriers will be crucial in the support of ERs’ mental health and wellbeing.
- Barriers to implementation included limited funding and a mismatch between corporate vision and individual needs. Barriers to engagement included concerns regarding stigma/masculine culture, confidentiality and career advancement.
- Facilitators of implementation included a culture of openness and buy-in from leadership/management. Facilitators of engagement included the presence of emotionally intelligent managers and allowing self-referrals to services.
- Stakeholders identified the following as gaps in provision and areas where they would like to see more work: suicide prevention and support; mental health and wellbeing training for managers; peer support; help with monitoring and evaluation of wellbeing programmes; more support for families and for specific groups who are currently underserved (including those transitioning into retirement, retirees, call operators, volunteers and ‘high risk’ roles).
- Stakeholders reported there was a need to facilitate sharing of knowledge and better practice both within and across the emergency services.
- Stakeholder interviews and the desktop-based research found emergency services relied heavily on charity sector support to provide wellbeing provision; however, geographical provision and access to these services was incredibly varied.

Recommendations

Definition

- The use of the term ‘Emergency Responder’ is suggested to be most beneficial when discussing mental health and wellbeing research, support and service provision across the branches of police, fire, ambulance and other ER volunteer services. The term presents a more meaningful, useful, expansive and inclusive term understood by individuals working in these services.

Research

- The sector could benefit from the creation of a ‘Research Consortium’ where researchers can utilise shared resources in aligning research measures, can make connections and can share their research ideas. This is likely to increase collaboration, research grant funding success, and decrease duplication of work.
- There is a need for support to facilitate meetings of researchers and practitioners (e.g. through symposia and conferences) to encourage translational research in this area, including development of relationships with international researchers and institutions to share and extend knowledge and innovation.
- There are many ER health and wellbeing areas with little or no research. Future work should focus on these research gaps, these include: self-harm, suicide ideation, suicide attempts and completed suicide, secondary traumatic stress, alcohol and substance misuse, shift work and sleep, workplace bullying and discrimination, finance and debt, and positive outcomes.
- Future research should focus attention on specific groups less studied including retirees, call operators, BME, LGBTQ, volunteers, search and rescue, high risk roles and more broadly ambulance and fire personnel.

- Research and support should assess organisational stressors and broader mental health and wellbeing outcomes, in addition to trauma and PTSD, to ensure research and support is reflective of ERs’ experiences.
- ER family research should focus on obtaining data from spouses/partners and children themselves and should address gaps in UK knowledge including: prevalence of mental health and wellbeing problems of ER spouses/partners and children, work-family conflict, relationship pressures, domestic/intimate personal violence, family resilience/coping strategies and positive outcomes.
- Methodologically, in ER academic research there is a need for:
 - a) Alignment across ER studies regarding use of evidence-based, validated mental health measures that are similar to allow for comparisons across studies.
 - b) Representative samples assessing prevalence of mental health and wellbeing in ERs.
 - c) Longitudinal studies that measure mental health and wellbeing over time to provide causal evidence and indication of long-term trends.
- Need to conduct research specifically focused on intervention evaluations, eHealth, and service utilisation. It may be particularly beneficial to focus on assessing interventions that fill gaps in provision.

Practice

- Explore and support evidence-based Continuing Professional Development resources, to upskill managers in terms of mental health and wellbeing and help promote senior buy-in and foster a culture of openness and supportiveness around wellbeing issues.

- ♦ Promote and extend support for mental health/wellbeing ‘champions’ and help promote peer support within ER organisations.
- ♦ Support destigmatising strategies within ER organisations, for example, through the continuation of mental health champions or by creating online video resources where ERs who have experienced mental health issues can share their stories.
- ♦ Promote sharing of ‘better practice’ across the sector, for example, by encouraging cross-collaboration and the showcasing of effective wellbeing frameworks and initiatives.
- ♦ Encourage collaboration between the charities in provision of support and create better signposting to the charities to support potential users.
- ♦ Facilitate better access to mental health and wellbeing support through the creation of a ‘Universal Gateway’ website (analogous to the Veterans’ Gateway; or <https://www.cipsrt-icrtsp.ca/>) or a tool that will aid ERs to navigate support options (including charitable provision), increase visibility of services, enable routes into care pathways and provide online self-assessment to increase recognition of potential mental health and wellbeing problems.
- ♦ Explore and examine effective models of suicide prevention with the ER sector to enable consistent implementation of evidenced-based suicide prevention models.
- ♦ Future support should assess the mental health and wellbeing needs of volunteer roles and examine specific support needs of call operators and high-risk roles such as those exposed to trauma or isolation (e.g. those lone working or analysts working in child abuse/exploitation).
- ♦ The ER sector should examine what support can be offered to volunteer ERs by promoting cross-service collaboration and facilitating relationship building across the emergency services sector.
- ♦ There is a need to better understand the mental health and wellbeing needs of retirees specifically around transition, retirement and post-service employment/career advice, and explore appropriate future provision of support to enable successful transitions out of ER roles.
- ♦ Explore current available resources to facilitate organisations to carry out standardised, context-specific evaluations of their mental health/wellbeing support services to enable better outcome measurement and feedback to improve support services.
- ♦ Work with sector to see how the mental health and wellbeing needs of ER families could be better understood and supported. There is a need to provide a space to share best practice between and within emergency services in the UK but, also, to highlight better practice models used in other countries (e.g., Canada, Australia, New Zealand).
- ♦ Help to make the available support for families (whether through charities and other organisations) more visible and accessible, perhaps through the creation of an online gateway that can facilitate access to relevant support.

Chapter 1

Introduction

The importance of wellbeing in the workplace has gained increasing momentum in the UK, as a result of rising mental health issues within the labour market (ONS, 2018) and growing evidence that fostering employee wellbeing results in positive outcomes at both the individual and organisational level (McDaid, 2011, Miller, 2016). Investing in mental health support can not only directly benefit employees' health, but can in turn improve productivity, decrease absenteeism, improve employee recruitment and retention, and increase worker engagement and morale.

Those working in emergency responder (ER) roles may be at an increased risk of adverse mental health and wellbeing outcomes. The ER group, sometimes referred to as 'First Responders', is a broad category that includes those in traditional 'blue light' emergency services and those in volunteer organisations, such as Search and Rescue and the Royal National Lifeboat Institute (RNLI). Regardless of the role type, the increased risk to mental health and wellbeing is likely due to the

nature of their work, which involves frequent exposure to potentially distressing situations, accident scenes and threats to safety to themselves and/or others (Finn et al., 2000). Furthermore, these high stress activities do not happen in isolation, but may be compounded by additional intense workplace stressors, including excessive workloads, unpredictable work, staffing cuts, tensions with colleagues, inadequate support, organisational change or disruption and increasing social accountability (Bennett et al., 2005).

Additionally, ERs can work long hours on shift work schedules that can interrupt their sleep patterns and take them away from their families and friends (Duran et al., 2019). These pressures happen within the current within a period of economic and political uncertainty, which has adversely affected working conditions through the implementation of austerity measures, including reduced service budgets, staffing cuts, increased solo working practices and stagnant pay (Coxon et al., 2016, Duran et al., 2018).

Initial scoping work by Mind looked at wellbeing across ERs and reported an elevated risk of psychological issues (including common mental health disorders and trauma-related issues) compared to the general population. The survey suggested that ERs may be twice as likely to identify their work as the primary cause of these symptoms compared to the general population (Mind, 2019a, Mind, 2019b, Mind, 2019c, Mind, 2019d, Mind, 2015). However, despite the pressures and stressors ERs are exposed to, there is a lack of collated data concerning their mental health and wellbeing and little is known about the nature and effectiveness of the support that is available to ERs and their families. Studies that have been conducted in this area tend to be small, often taking only snapshots of mental health and wellbeing at one time point (i.e. cross-sectional research), with samples that are not representative of the ER populations (Durkin and Bekerian, 2000, Shepherd and Wild, 2014, Hesketh et al., 2014a). It is therefore difficult to get a picture of the overall landscape of mental health and wellbeing across ER groups.

There is a continuing duty of care from employers, policy makers and the Government to protect their employees and mitigate wellbeing risks. This is particularly of interest for ER roles providing public services and who may be exposed to intense working practices and potentially traumatic events. The first step in understanding how best to support ERs, is to better understand the most common mental health and wellbeing concerns that occur in this occupational context. Mind (2015) also highlighted that ERs may be less likely than the general public to seek support for their symptoms. This is likely to be the result of a number of factors, including:

- Workplace culture and stigma (Watson and Andrews, 2018);

- Concerns about confidentiality and impact of disclosure on career (Haslam and Mallon, 2003);
- Appropriateness, acceptability and accessibility of the support initiatives that are available (Fielding et al., 2018).

Hence ERs may experience barriers when accessing support. Furthermore, little is known about the current landscape of wellbeing support that is available across the emergency services, and research on the effectiveness of support programs, interventions and policies is scarce. Thus, in order to better support ERs, it is necessary to first identify what is currently available in terms of wellbeing provision; establish what programmes and interventions work (and what does not), and identify the potential barriers and facilitators associated with embedding wellbeing initiatives within current practice. Obtaining a better view of the support landscape across the services in this way will allow for the identification of areas which are currently underserved and identify where resources may be best placed to improve the status of wellbeing provision.

In terms of supporting ER wellbeing, it is important to consider the wider social context of support. For example, the job demands associated with being an ER have a direct impact on family life and relationships, which may in turn have an impact on ER wellbeing. Additionally, family members are often the first to notice the signs and symptoms of poor mental health in one another and so may be well placed to identify problems and facilitate access to support and treatment, playing a vital role in their recovery. Understanding how families are (or could be) integrated into mental health and wellbeing support may help to aid the development of a more holistic and inclusive support system for ERs that spans both work and home contexts. We also know little about the health of ER's spouses/partners and children themselves.

Being part of an ER family may have benefits as well as risks to mental health and wellbeing. Therefore, it is vital to understand the mental health and wellbeing of families as a whole unit. This will facilitate better support to improve family functioning and enable ER families to thrive.

Overall, there is a need to improve our understanding of the current mental health and wellbeing needs across the ER community and gain better insight into the initiatives that are available to support them. This project directly addresses this by identifying mental health and wellbeing research (completed and ongoing) across the emergency services and volunteer roles; and provides a comprehensive overview of current wellbeing-related practice across the UK. The purpose of this report is to establish:

- 1 What is the most meaningful or useful terminology to use when discussing emergency services, volunteer and first responder roles?
- 2 What is the evidence concerning the most prevalent mental health and wellbeing problems in UK ERs?
- 3 What is the evidence concerning the mental health and wellbeing needs of ER families in the UK?
- 4 What are the current limitations and gaps in our knowledge about the mental health and wellbeing of UK ERs and their families?
- 5 What is the current provision of services to support the mental health and wellbeing of ERs across different emergency services/volunteer roles in the UK, both in terms of practice-based initiatives and projects, and in terms of research?
- 6 Are there barriers and facilitators associated with current service provision and are there gaps in mental health and wellbeing services or support to ERs and their families?

Project Activities

To address the research questions, the following activities have been undertaken:

1. Exploration of Emergency Services and First Responder terms

Qualitative interviews were conducted with 33 individuals based in Occupational Health, Human Resources, or other wellbeing-related positions of responsibility across the different branches of the emergency services. We also engaged with stakeholders to discuss and describe current terms for individuals involved in emergency or first responder roles. This investigation sought to identify what terms have most utility for the purposes of mental health and wellbeing research and service provision. Terms and definitions are important as the language used in research and service provision serves to identify which personnel are included and excluded from these activities.

2. A systematic review of UK academic and grey literature

We explored, described and collated current UK evidence regarding the mental health and wellbeing of the UK ER community and identified gaps in evidence. Two systematic searches of academic literature concluded in July 2019. Eighty-one papers were eligible for inclusion for the UK ER review. As there were limited UK research papers for ER families research, this review was widened to an international level, returning 62 eligible papers. For full details of systematic review methods see Appendices 1 and 6.

3. International Review

We searched international research findings regarding mental health and wellbeing of ERs. This evidence is presented throughout our report where it supplements, aids or fills gaps in UK evidence and understanding.

4. A review of the current landscape of on-going practice and research-based projects pertaining to the mental health and wellbeing of ERs and their families

Interviews were carried out with 33 individuals based in Occupational Health, Human Resources, or other wellbeing-related positions of responsibility across the different branches of the emergency services, including: 8 ambulance, 11 fire and rescue (hereafter referred to as ‘fire’), 10 police, and 4 other emergency service organisations (including mountain rescue, RNLI and HM coastguard). The aims of these interviews were to establish a snapshot and descriptive overview of initiatives and strategies that currently exist to support the mental health and wellbeing of ERs in the UK. Interviewees were also asked to highlight any activity they felt represented ‘best practice’ and to identify any gaps/limitations in this domain.

In addition, internet searches took place to identify, describe and collate information about the available online resources and services that play a role in supporting ERs, as well as documenting ongoing practice, policies and research related to the mental health and wellbeing of UK ERs and their families. This was a pragmatic, rather than systematic review, and was carried out in a flexible manner, incorporating information gathered from the interviews, as they arose. For full details of landscape methods see Appendix 2.

5. Development of relationships with key stakeholders (UK and international)

Throughout our project we have engaged with stakeholders to inform, shape and direct our work. The Royal Foundation Stakeholders Group has been a vital sounding board since the inception of the project. A small Research Steering Group was set up to continue to co-produce analysis of results and guide recommendations. This group had representation from operational ERs, including some with lived experience which helped to keep the project grounded in the day-to-day reality of service. We have additionally engaged with stakeholders internationally who have vital experience and research evidence regarding their own nation’s ERs.

6. Explore and describe available current UK datasets to assess feasibility of analysing data to inform research question

We surveyed researchers to collate information on current UK datasets that contain ER mental health and wellbeing data. This survey informs current data gaps and future data collection. Please see Appendix 3 for a list of these data sources.

For the purpose of this report, evidence from across the different research activities has been pulled together, audited, summarised and synthesised. This has enabled us to produce a comprehensive overview of existing and ongoing mental health and wellbeing-related research and practice-based projects in the ER domain.

Throughout the text we include recommendations.
The recommendation boxes are coloured purple, green and blue. These represent:

DEFINITION RECOMMENDATION

RESEARCH RECOMMENDATION

PRACTICE RECOMMENDATION



Chapter 2

Who are ‘First Responders’?

Is ‘First Responder’ a meaningful and useful term?

This work initially aimed to investigate the current state of wellbeing needs and support across the UK ‘First Responder’ community. However, before beginning work on this project (March 2019), stakeholder engagement and initial scoping research suggested the term ‘First Responder’ may not be meaningful in a UK context. For example, an Open University stakeholder event at the Centre of Policing Research and Learning with representatives from 21 police forces/agencies asked representatives to define what roles should be considered ‘frontline’ and what terms were most useful. Stakeholders reported that the term ‘First Responder’ was unsuitable and too exclusive. Internet searches highlighted that the term ‘First Responder’ was not commonly used by the emergency services in the UK, but is instead closely tied to the role of ‘Community First Responders’- volunteer members of the community who respond to local emergency calls and provide essential first aid before an ambulance arrives. Furthermore, when searching online resources, hits for ‘First Responder’ tended to be overseas, suggesting the term was linked more to United States (US), Canada and Australia, than the UK.

The question of the utility of this term was explored further in the 33 qualitative interviews that were conducted as part of the landscape review. Each interviewee was asked the question ‘how do you define the term First Responder?’

at the start of their interview. The most prevalent response was, ‘those first on the scene’, including paramedics, emergency care practitioners, firefighters etc.

*“Anyone who’s first on scene really - to a call out”
(ID 8, Fire)*

But very few participants were resolute in their response, with participants emphasising the ‘grey area’ the term creates, highlighting the challenge of defining the term, for example:

“It could be that they’re firefighters, police, RNLI, coastguard, possibly community first responders, but it depends on which context. I would tend to take it as somebody that’s in a formal role rather than a voluntary. That’s not quite right either, RNLI are volunteers” (ID 40, Ambulance)

Participants often deemed the term to include ‘operational’ staff or ‘on shift responders’:

“Operational staff who attend incidents as they’re notified” (ID 32, Fire)

“Someone who is responding on behalf of the emergency services in some capacity to attend an emergency call” (ID 40, Ambulance)

However, many stressed that the term created issues for them, and that it was rarely used in practice:

“I think the whole idea of first line responder is outdated” (ID 10, Police)

“In terms of the work I do, I don’t even bother with the term first responder” (ID 4, Police)

One of the reasons for this is that many participants felt the term was exclusionary, for example it meant control room staff and call handlers were overlooked, and excluded other high-risk roles such as those involved in post-incident analysis, or working with potentially traumatic images (e.g. child sexual exploitation or terror-related videos):

“Call handlers... can hear the sounds... the drama or the trauma... we quite often forget about them because they're usually based in a call centre” (ID 17, Police)

“People who are perhaps in positions where they... are constantly dealing with child sexual exploitation and are having to look at really difficult and horrific imagery on a repeat basis. In a traditional sense you wouldn't say that's a first line response, but it is absolutely part of your frontline delivery.” (ID 10, Police)

While operational staff who are first on scene may be most commonly deemed First Responders, it is not a term many seemed comfortable in using. Indeed, many participants went as far as to redefine the term to include every member of their team across the whole organisation.

“We're all First Responders, every one of us” (ID 12, Mountain Rescue)

From an operational perspective, the wellbeing support that is in place is generally available to all staff and does not differentiate between job roles. Indeed, many described their wellbeing provision as being aimed at meeting individual staff needs, rather than as a function of their job role per se.

“It tends to be standard across the board” (ID 4, Police)

*“We would offer things like TRiM¹ * and other support to people who were also remote from the scene but affected by it” (ID 27, Fire)*

Although some additional support does appear to be in place for those who might be described as First Responders (i.e. operational staff who arrive first on scene), and this tends to be in the form of more frequent screenings for fitness and medical issues, as a certain level of fitness is required for the job.

“[First Responders] have to have a medical every three years and you have to be fitness tested every year; whereas it's an option for support staff” (ID 27, Fire)

Furthermore, additional support is available to groups who are deemed as ‘high risk’, but who fall outside the more operational definition of a First Responder. These often included roles that involved staff having to view distressing images or having to manage areas prone to high suicide rates.

“Recognising that those high-risk groups are not necessarily what you would term First Responders” (ID 10, Police)

“The groups... that we know have high psychological risk... we proactively give them additional support” (ID 11, Police)

Overall, it seems that the term ‘First Responder’ is not seen as useful or meaningful in a UK context. Many participants found the term too narrow, and several explicitly said they would never use the term as part of their work, judging it to have little utility in practice. Given that many participants actively rejected the term, it is important to find an acceptable and meaningful term in the context of this project.

** Notes can be found on page 135*

Identifying a meaningful alternative

To identify a more meaningful and useful term, the research team ran a workshop with the Royal Foundation Stakeholder Group in July 2019 where this term and alternatives was explored. In agreement with the findings outlined above, stakeholders broadly felt that ‘First Responders’ was not a meaningful term, which often excluded those who were not necessarily frontline, such as control room staff. They felt this was an unhelpful way of categorising people, as inclusion was unclear and there was an implication that those who get to the scene first are somehow the most important, or more in need of support (which is not necessarily the case). Furthermore, they felt that support should be based on individual need and not job role. Thus, focusing purely on operational staff was likely to be detrimental, as it would inevitably exclude groups of emergency personnel who are at risk of mental health and wellbeing issues. Some stakeholders suggested the term ‘Emergency Services’ would be acceptable, however volunteer representatives felt this might exclude volunteer services due to mistaken assumptions about which services/organisations could be classified in this way. After discussion, the term ‘Emergency Responders’ was put forward as an acceptable alternative, as it was deemed more inclusive and was better understood by those within the services and externally.

While there was some apprehension from the search and rescue services that the term may be thought of as applying only to the three larger emergency services, from the results of this stakeholder engagement we suggest using the term emergency responders (or ERs) expansively, to include First Responders, operational staff,

call operators, and other ‘at risk’ emergency service personnel across the blue light and search and rescue services (i.e. fire, ambulance, police, mountain rescue, RNLI, HM coastguard). Thus, we will be using this term in this way throughout the report, in an inclusive manner.

KEY HIGHLIGHTS

- ♦ Stakeholders reported the term ‘First Responders’ was not meaningful or useful in a UK context.
- ♦ The term ‘Emergency Responders’ was suggested as an expansive alternative that was more inclusive across the spectrum of emergency services and volunteer roles when discussing mental health and wellbeing needs.

RECOMMENDATION

The use of the term ‘Emergency Responder’ is suggested to be most beneficial when discussing mental health and wellbeing research, support and service provision across the branches of police, fire, ambulance and other ER volunteer services. The term presents a more meaningful, useful, expansive and inclusive term understood by individuals working in these services.



Chapter 3

What are the problems?

3.1 What are the mental health and wellbeing problems Emergency Responders experience?

One key aim of this report was to establish what the mental health and wellbeing needs of ERs in the UK might be, as a means of informing potential support in the future. This chapter addresses this question by bringing together evidence from the systematic and landscape reviews.

UK systematic review

The systematic review identified 81 papers that investigated the mental health and wellbeing concerns of ERs (for detailed methods of the systematic review see Appendix 1). Of these papers, 46 used quantitative methods, 23

qualitative methods, four mixed methods (studies using both quantitative and qualitative approaches together) and eight studies investigated mental health or wellbeing interventions in ER populations (intervention studies are discussed in section 4.5). There were 78 cross-sectional studies (studies that collect data at one point in time) and three studies that collected data over several time points (Ørner, 2003, Jones, 2017). Overall, the sample populations included 43 studies from the police service, 16 fire service, 14 ambulance service, four ‘other’ ERs groups such as community first responders and Her Majesty’s Coast Guard, and four studies used mixed samples of ERs (Table 1). From our search of grey literature², we also found research across ER branches from eight different sources (see Appendix 4 for full details).

Table 1 - Systematic review results by methods and ER service branch

Type of study	Number of papers	Police	Fire	Ambulance	Other ERs (e.g. community first responders)	Mixed ERs (e.g. police and fire)
Quantitative	46	23	7	9	4	3
Qualitative	23	12	6	4	-	1
Mixed Methods	4	2	1	1	-	-
Intervention Studies	8	6	2	-	-	-
Total	81	43	16	14	4	4

Common mental health problems

Common mental health problems or disorders (CMD) include depression and anxiety disorders. Depression is characterised by persistent low mood and/or loss of pleasure in most activities. It is defined by the presence of at least five out of a possible nine defining symptoms present for at least two weeks, of sufficient severity to cause clinically significant distress or impairment in social, occupational, or other important areas of functioning (NICE guidance³). Generalised anxiety disorder (GAD) is one of a range of anxiety disorders. Anxiety disorders can exist in isolation but more commonly occur with other anxiety and depressive disorders. GAD is a common disorder, of which the central feature is excessive worry about a number of different events associated with heightened tension. A formal diagnosis requires two major symptoms (excessive anxiety and worry about a number of events and activities, and difficulty controlling the worry) and three or more additional symptoms from a list of six. Symptoms should be present for at least six months and should cause clinically significant distress or impairment in social, occupational or other important areas of functioning (NICE guidelines⁴).

In both research and healthcare settings, depression and anxiety disorders are measured or screened for using a variety of mental health measures (for example: The Hospital Anxiety and Depression Scale (HADS; (Zigmond and Snaith, 1983), The Beck Depression Inventory (BDI; (Beck et al., 1988), The General Health Questionnaire, (GHQ; (Goldberg, 1978). These measures give robust indications of psychological distress or psychological ill health but are not full clinical diagnoses, which must be assessed by a clinical professional.

In representative samples⁵ of the English general population CMD is estimated to occur

at a rate of just over 16% (McManus et al., 2016). It is difficult to compare this finding to the studies identified by the systematic review, as only one study, Houdmont et al. (2018), used a representative sample of police in England and Wales. All other ER studies used non-representative samples. Representative sampling methods are preferential as they can more accurately estimate the level of ill health at a population level and reduce sample biases. The systematic review studies also used a mixture of measures to assess CMD and reported outcomes in different ways using both means (the average) and prevalence rates (the number of cases of a condition or disease that are present in a particular population at a given time).

From the systematic review, the prevalence of anxiety and depression was wide and ranged from 7% - 52% in police and ambulance samples. Of note is the Houdmont and Randall (2016) study of police officers that found 52% of their sample reported CMD. Black et al. (2013) found a prevalence of 50% for depression in a retired police officer sample in Northern Ireland; and depression was more prevalent in those who were retired on medical grounds (24%) compared to those who retired normally (7%).

UK studies of ambulance personnel found the prevalence of anxiety and depression reported was 22% and 10%, respectively (Bennett et al., 2004). General psychological distress in ambulance personnel as measured by the GHQ-28 was reported at 32% (Alexander and Klein, 2001). Aisling et al. (2016) found that ambulance personnel had lower mean psychological distress scores than junior doctors and staff nurses on GHQ-12 scores, indicating fewer mental health problems in comparison. However, the average means for paramedics and emergency medical technicians in this study were still over thresholds for clinical

cut offs, indicating CMD in this population. A study of a Northern Irish fire brigade found a high psychological distress mean using the GHQ-28, which indicated mental health need in this sample (Brown et al., 2002). The main outlier finding low levels of depression was a study assessing the UK coastguard (HMCG) reporting a 7% prevalence of depression (Smith, 2011). Overall, we can see that there are CMD needs within ER populations from these studies. Some ER research CMD estimates are similar to representative UK Armed Forces samples that report a prevalence of CMD of 22% (Stevellink et al., 2018). However, care needs to be taken in drawing such comparisons as the research on ERs described here is not representative. Whilst it is also hard to compare between branches of ERs, police studies have found a high prevalence of CMD in their sample populations, particularly in retired cohorts compared to UK ambulance personnel studies.

The UK Mind (2015) grey literature study confirms these areas of need in mental health. Their survey reported that 92% of ERs surveyed had experienced stress, low mood and poor mental health at some point in their career. From Mind's 2019 follow-up surveys, the majority of ambulance (76%) and police (70%) reported personal experiences of mental health problems. More than half of ambulance participants reported depression (56%) and anxiety (55%). Nearly two-thirds of fire personnel experienced mental health problems at some point (60%), as did almost half of search and rescue personnel (49%) (Mind, 2019a, Mind, 2019b, Mind, 2019c, Mind, 2019d). These reported rates are high compared to other UK studies which may be a result of the sampling method used and the nature of respondents' engagement with the blue light programme. Furthermore, some participants may have engaged with the programme due to their already existing

mental health problems, causing a response bias.

To compare these findings with that of international research, US studies suggest that rates of depression and depressive symptomatology among ERs were higher than in the general population (Jahnke et al., 2016). A Canadian study found that ERs reported mental health conditions at a higher prevalence compared to the Canadian general population (Carleton et al., 2018), however this study whilst being large, was not strictly a representative sample of the Canadian ER population. Within ERs in the study, depression was highest in call centre operators/dispatchers (33%), followed by Royal Canadian Mounted Police (32%), paramedics (30%) firefighters (20%) and provincial police (20%) (Carleton et al., 2018). This study also found the prevalence of GAD was highest in the Royal Canadian Mounted Police at 23%, and with 21% of paramedics, 18% of call operators/dispatchers, 15% of provincial police and 12% of firefighters experiencing GAD. However not all international studies find high levels of CMD and GAD. The prevalence of depression in an Italian police force at 7% was found to be lower than that of the general population (Garbarino et al., 2013). In line with this, a Swedish study of police officers found the prevalence of psychological distress was 7% using the GHQ-28 (Renck et al., 2002). UK CMD findings are broadly in line with Canadian ER findings. Therefore, findings are mixed concerning the prevalence of CMD in ER personnel compared to general populations internationally. There is however some evidence internationally that police and ambulance samples may report higher levels of CMD compared to firefighters, which may support UK findings regarding mental health outcomes in police compared to other services.

Posttraumatic Stress Disorder

PTSD can develop after a stressful event or situation of an exceptionally threatening or catastrophic nature. It is a disorder that can affect people of any age. Around 25–30% of people experiencing a traumatic event go on to develop PTSD (NICE guidelines⁶). PTSD can present with a range of symptoms. In adults the most common of these are vivid, distressing memories or flashbacks of the event, known as intrusive symptoms. Another prominent symptom is avoidance of trauma-related reminders or general social contact⁷. Again, in research and clinical settings PTSD has been measured and screened using a variety of different measures. These include the Posttraumatic Diagnostic Scale (PDS; (Foa et al., 1997) a 49-item self-report measure recommended for use in clinical or research settings to measure severity of PTSD symptoms related to a single identified traumatic event), the PTSD Check List-Civilian (PCL-C; (Weathers et al., 1993) a 17-item self-report measure used in research and clinical settings to screen civilians for PTSD and aid diagnosis); and the Impact of Events Scale (IES; (Horowitz et al., 1979) a 15-item self-report measure which assesses subjective distress caused by traumatic events in relation to intrusion and avoidance symptoms.

In the UK general population approximately 4% of men and 5% of women screen positive for probable PTSD⁸ (McManus et al., 2016). For comparison, in UK Armed Forces the prevalence of probable PTSD is 6% (Stevellink et al., 2018). From our UK systematic review, seven studies measured PTSD symptoms/distress and probable PTSD utilising five different measures, however no studies used representative samples. These outcomes were reported by use of means and prevalence rates. The prevalence of PTSD symptoms and probable PTSD ranged from 4% - 60% across samples of police, fire and ambulance

(Figure 1). This wide prevalence range is likely due to different samples and PTSD measures used by the studies. Four studies, Bennett et al. (2004), Haslam and Mallon (2003), Shepherd and Wild (2014), and Durkin and Bekerian (2000) use similar PTSD measures - Posttraumatic Diagnostic Scale (PDS) (Foa et al., 1997) and the PTSD Symptom Scale-Interview (Foa et al., 1993). The ambulance studies report a higher prevalence of probable PTSD (22% and 15.5%) (Bennett et al., 2004) compared to the firefighter personnel studies (6.5% and 11.5%) (Durkin and Bekerian, 2000, Haslam and Mallon, 2003). From the Mind Survey in 2019 just over a third of ambulance personnel reported probable PTSD (31%), again reflecting higher levels in the Mind survey compared to other UK research (Mind, 2019a, Mind, 2019b, Mind, 2019c, Mind, 2019d).

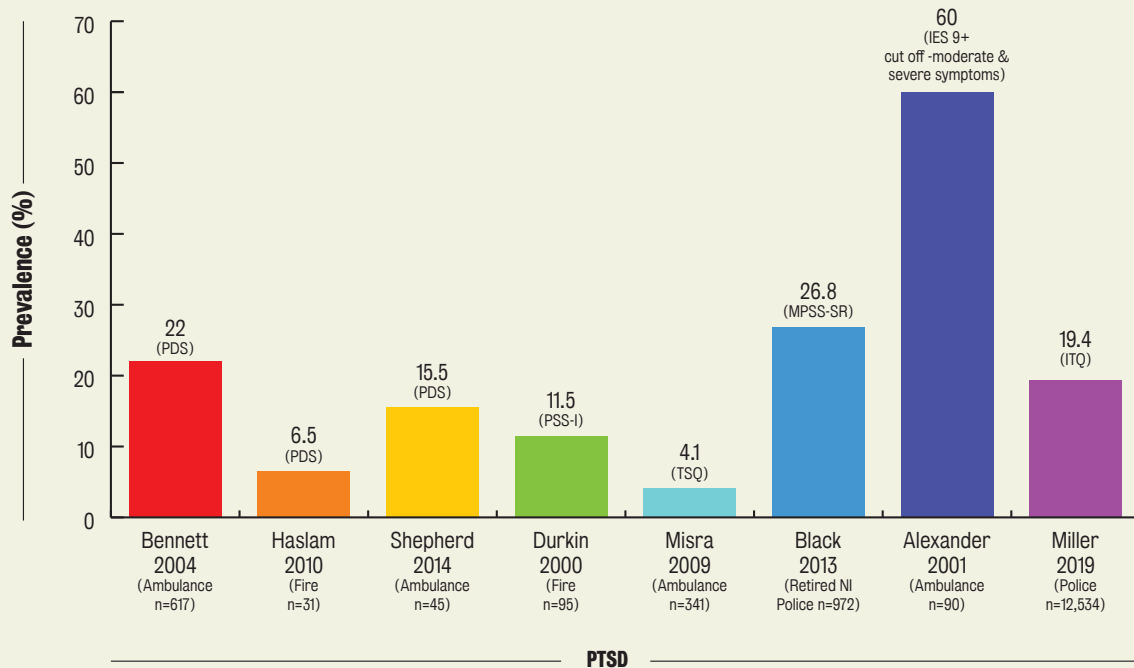
Comparison across the prevalence in studies is difficult due to the use of different measures, small sample sizes in the Haslam and Mallon (2003) and Shepherd and Wild (2014) studies, specific sample populations such as retired police officers in Northern Ireland in Black et al. (2013) and context specific studies in Misra et al. (2009) who assessed the effect of the 7/7 bombings on the London Ambulance Service. Misra et al. (2009) found a relatively low prevalence of probable PTSD in their sample (4%). Again, retired police officers in Northern Ireland present with a high prevalence of probable PTSD (27%), with those retired on medical grounds reporting the highest prevalence of probable PTSD (17%) compared to those who had a non-medical retirement (2%). We include the Miller et al. 2019⁹ study in Figure 1. This study could not be included in the systematic review as its findings were not published at the time of running the systematic search, however it is a large study of UK police officers that found the

prevalence of probable PTSD at approximately 20%. This prevalence of PTSD is similar to that found in Bennett et al. (2004) in a sample of ambulance personnel. Compared to the UK general population and UK Armed Forces these prevalence rates are high. However, the ER studies listed are not representative and so may overestimate prevalence figures due to the recruitment biases of occupational studies.

The Alexander and Klein (2001) study utilised the Impact of Events Scale (IES; Horowitz et al., 1979) which assesses subjective distress caused by traumatic events. This study found high levels of distress in their ambulance sample (60%), however the IES measure is not a direct diagnostic tool for

PTSD, instead measures levels of psychological distress (Joseph, 2000) which may explain the higher prevalence reported. The Alexander and Klein (2001) study reported higher mean levels of distress in relation to intrusion and avoidance symptoms in their ambulance sample compared to a police study which utilised the same measure of distress (Santos et al., 2009). A study assessing posttraumatic reactions amongst firefighters found low levels of trauma overall in the cross-national samples. In this study, UK firefighters had lower mean IES scores compared to Czech, Italian, Polish, Turkish and German firefighters but a higher mean score than Swedish and Spanish firefighters (Kehl et al., 2014).

Figure 1 – Probable PTSD/PTSD Symptoms Prevalence Across UK Emergency Responder Studies



PTSD Measures Abbreviations

PDS = Posttraumatic Diagnostic Scale (Foa et al., 1997); **PSS-I** = PTSD Symptom Scale Interview (Foa et al., 1993); **TSQ** = Trauma Screening Questionnaire (Brewin et al., 2002); **MPSS-SR** = Modified PTSD Symptoms Scale Self-Report (Falsetti et al., 1993); **IES** = Impact of Events Scale (Horowitz et al., 1979); **ITQ** = International Trauma Questionnaire (Cloitre et al., 2018)

From international research, prevalence rates for probable PTSD in ERs have been found to vary widely. These fluctuations are likely to be a result of using various cut-off scores, a variety of PTSD measures and methods (primarily self-report) with a lack of representative samples. Researchers and policy makers must take note of whether studies are assessing a particular traumatic event or ‘normal’

day-to-day occupational stress as comparisons across these studies may not be appropriate. In international studies that use the PCL-C PTSD measure, estimates range from 6% - 40% (Table 2). Hence most UK studies’ prevalence findings fall within the bounds of what has been reported in international research.

Table 2 – International studies reporting probable PTSD prevalence in ERs

Study	Country	Event	PTSD Prevalence
Berninger et al. 2010	US	9/11 (1 and 4 years on)	8.6% in year 1 – Firefighters 11.1% in year 3
Perrin et al. 2007	US	9/11 (3 years on)	12.4% - All 6.2% - Police 21.2% - Unaffiliated volunteers
Wisnivesky et al. 2011	US	9/11 (9 years on)	9.3% - Firefighters
West et al. 2008	US	Hurricane Katrina	19% - Police
Meyer et al. 2012	US	General trauma exposure	6.4% - Firefighters
Chen et al. 2007	Taiwan	General trauma exposure	15.9% - Firefighters
Asmundson et al. 2008	Canada	No specific event	31.9% - Police
Hartley et al. 2013	US	No specific event	15% - Male Police 18% - Female Police
Milligan-Saville et al. 2018	Australia	No specific event	5.4% - Firefighters

The prevalence of probable PTSD amongst firefighters responding to the World Trade Center (WTC) terrorist attacks of '9/11' ranged from 9% within 6 months of 9/11 and rose to 11% an average of three years later (Berninger et al., 2010). Another study compared the prevalence and risk factors of probable PTSD across ER occupations three years after 9/11 and found the overall prevalence was 12%, ranging from 6% for police to 21% for unaffiliated volunteers (Perrin et al., 2007). The prevalence of probable PTSD amongst New Orleans police officers two weeks after Hurricane Katrina was 19% (West et al., 2008). Further rates of 6% were found amongst trauma-exposed firefighters in a US sample (Meyer et al., 2012) and 16% in a Taiwanese sample (Chen et al., 2007).

A Canadian ER study assessing probable PTSD found Royal Canadian Mounted Police reported the highest levels of 30%, followed by paramedics (26%), provincial police (20%), call operators/ dispatchers (18%) and then firefighters (14%) (Carleton et al., 2018). This finding in police replicated a previous study where a prevalence of probable PTSD of 32% was reported amongst a sample of Canadian police officers that were not assessed in relation to any particular event (Asmundson and Stapleton, 2008). Prevalence rates of probable PTSD were found in a US study of police to be 15% for men and 18% for women (Hartley et al., 2013). In contrast, a prevalence of 5% was found in Australian firefighters (Milligan-Saville et al., 2018). This is in line with results from the systematic review which found firefighters

to have the lowest prevalence rates compared to police and ambulance personnel (Durkin and Bekerian, 2000, Haslam and Mallon, 2003).

A Canadian study of police call handlers using the IES measure showed that 31% of the sample displayed symptoms that met the criteria for PTSD symptoms (Regehr et al., 2013). A fairly similar prevalence of 40% was found when assessing a general firefighter sample in Canada (Regehr et al., 2000); and 49% in a sample of South African police (Peltzer, 2001). A lower prevalence of 15% was reported in Swedish ambulance workers (Jonsson et al., 2003), indicating variation in the PTSD symptom prevalence (measured by the IES) amongst different ER populations. In an attempt to bridge the inconsistencies in PTSD measures and cut-off scores, one author used two different widely used measures on the same US firefighter sample (Del Ben et al., 2006). Findings suggested that the newer and more complete PTSD measure: Posttraumatic Stress Disorder Checklist/Civilian Version (PCL) (Weathers et al., 1993) yielded results that were more in line with the current diagnostic criteria, compared to the Impact of Event Scale (IES) (Horowitz et al., 1979) - a widely used but incomplete PTSD measure, developed before PTSD became a formal diagnostic category.

Hence, whilst caution should be taken with interpreting prevalence outcomes across different studies, taken together these findings suggest that UK ERs report high levels of probable PTSD (compared to the general population), with police and ambulance samples reporting higher levels of probable PTSD compared to fire personnel samples.

Can PTSD symptoms develop over time?

International research suggests that PTSD prevalence increases over time within ERs. For example, Canadian firefighter recruits were less likely to be depressed and had lower levels of trauma symptoms than their senior counterparts (Regehr, 2009). Australian retired firefighters showed substantially higher probable PTSD and depression rates than current firefighters (Harvey et al., 2016). A similar finding emerged in a study of Canadian police call handlers, where the number of PTSD trauma symptoms was associated with the number of years employed: that is, longer employment as a police officer was associated with higher levels of PTSD symptoms (Regehr et al., 2013). This is in line with the Berninger et al. (2010) US 9/11 firefighters study which found increased PTSD over time suggesting that PTSD related to a particularly traumatic event may not always develop immediately.

The increase in probable PTSD over time could be indicative of the association between cumulative occupational trauma exposure and psychopathology (Harvey et al., 2016). However, Black et al. (2013) suggests that leaving service through unplanned or unexpected retirement (i.e. retirement not initiated by the individual) was a key factor affecting negative mental health and wellbeing outcomes in a sample of retired Northern Irish police officers. To provide an insight into this issue, future UK research should focus on representative, longitudinal studies and early risk identifications which provide opportunities to identify prevalence of PTSD and possibly why PTSD symptoms have

been found to increase over time in international ER populations. Equally, there is little research into retired UK ER populations, therefore research that focuses on the transition out of service and health needs of retired ER populations is also a key part of understanding long-term health outcomes.

KEY HIGHLIGHTS

- ♦ The systematic review found only one study that used a representative sample of police in England and Wales. All other ER studies used non-representative samples.
- ♦ The studies identified suggested ERs' experience specific occupational stressors associated with poor mental health and wellbeing outcomes. On average, the evidence indicated that ERs may experience more mental health problems, such as depression, anxiety and PTSD, compared to the UK general population. However, due to methodological concerns, it was difficult to draw robust conclusions.
- ♦ UK and international research suggest police and ambulance personnel may experience higher levels of CMD and PTSD compared to fire personnel.



3.2 What are the potential causes of mental health and wellbeing problems in UK Emergency Responders?

The studies included in the systematic review explored many different forms of stressors in relation to their association with mental health and wellbeing outcomes. Different stressors can be categorised into incident/operational and organisational stressors. Overall, studies suggest that organisational stressors may have the strongest impact on ERs mental health and wellbeing. Organisational stressors are deemed to create difficult working environments that exact a high demand from the individual which has a negative effect on their health and relationships. However, other studies suggest it is the combination of these stressors that may negatively affect ERs mental health and wellbeing.

Demographic associations of CMD and PTSD

UK studies with police found that females and those who were divorced or separated were more likely to experience CMD and PTSD (Collins and Gibbs, 2003, Tehrani, 2016a, Roach et al., 2017, Fielding et al., 2018, Tehrani, 2018) (Appendix 5). Houdmont and Randall (2016) found police of a lower rank had higher levels of CMD. These findings reflect similar associations found in the UK general population, suggesting that females and lower wage earners are more likely to experience CMD and PTSD (McManus et al., 2016).

From international evidence, the traditionally male-dominated fields of certain ER branches (e.g. policing, firefighting) can create added stressors for female officers (Dowler and Arai, 2008). A study of Canadian police showed female officers experienced a higher level of stress, which was associated with the perceptions of gender-related jokes (Dowler and Arai, 2008). Additionally, discrimination against an individual's racial,

gender, or ethnic group was found to be an important predictor of stress (Morash et al., 2006). Our review found UK female firefighters reported stereotyping and harassment at work, regardless of sexual orientation (Rumens and Broomfield, 2012, Wright, 2008). Most of the literature argues that this type of prejudice at work increases occupational stress, which in turn negatively impacts the victim's mental health and wellbeing. Therefore, exploring these biases in a UK context is vital.

A US study of police showed that depression was greater in women (22%) compared to men (12%) (Darensburg et al., 2006). Conversely, another US study of police found no statistically significant differences in burnout or occupational stress amongst female and male officers (McCarty et al., 2007). This was confirmed by He et al. (2005) in a US police sample who found that dynamic factors including coping mechanisms contributed more to the understanding of work stress than did static factors such as race and gender. This would indicate that perhaps belonging to a particular race or gender is not a determining predictor of adverse mental health and wellbeing, however experiencing discrimination and harassment as a result, could perpetuate negative outcomes.

Incident/Operational stressors

Across UK studies and branches of ERs, traumatic exposures due to work, specifically, incidents involving children, handling of dead bodies, serious accidents, experiences of violence, threat of death or witnessing death, were associated with probable CMD and PTSD (Appendix 5). For example, ambulance personnel who had experienced a disturbing incident in the last six months compared to those who had not were more likely to experience CMD symptoms (Alexander and Klein, 2001). In two different police samples, police personnel who were assaulted compared to those who were not, were more likely to report probable PTSD (Black et al., 2013, Green, 2004)

Green (2004) found police personnel report nightmares, social avoidance, smoking, drinking and relationship breakdown as a result of on the job incidents such as serious assault or threatened murder. Police also report specific anxiety in relation to being exposed to bodily fluids in the course of their work (Dunleavy et al., 2012). 82% of ambulance personnel reported a disturbing incident in the last six months and 69% reported not having time to recover after experiencing potentially traumatic events (Alexander and Klein, 2001). Ambulance call handlers that received a higher number of abusive calls experienced increased emotional exhaustion, anxiety and depression, which in turn affected their commitment and increased turnover within the service (Sprigg et al., 2007). Two different studies of community first responders reported high emotional demands during call outs which caused high stress (Kindness et al., 2014, Phung et al., 2018). Fire personnel reported rumination, disturbed sleep and decreased satisfaction with life due to trauma exposure, citing child fatalities and serious accidents as events that caused the most distress (Haslam and Mallon, 2003). The negative effect on mental health and wellbeing of incidents involving children are replicated in further fire (Baker and Williams, 2001), ambulance (Alexander and Klein, 2001, Bennett et al., 2005, Drury et al., 2013), and police studies (Roach et al., 2017, Roach et al., 2018).

The 2019 Mind survey found that amongst the ambulance, fire, and search and rescue respondents, experiencing traumatic events was reported as the largest cause of mental health problems, and amongst police as the second largest cause of mental health problems. This was a change from their 2015 report where ERs were more likely to attribute their mental health problems to their working conditions (Mind, 2019a, Mind, 2019b, Mind, 2019c, Mind, 2019d).

International findings add to an understanding of UK research. Much of the international literature has focused on cumulative exposure as

a precursor for developing PTSD (Regehr et al., 2003a, Geronazzo-Alman et al., 2017), and other psychological disturbances such depression (Regehr et al., 2000, Monnier et al., 2002), problematic drinking (Bacharach et al., 2008) and nightmares (Neylan et al., 2002). Based on existing US and Dutch studies, a recent study of German ambulance personnel has developed a checklist of emotionally stressful and critical incidents with the aim of improving the accuracy of predicting the impact of a critical incident. They found that incidents were more likely to be experienced as traumatic if ambulance personnel (i) became victims of attacks or threats (ii) lacked professional detachment from patients (iii) perceived the overall incident as particularly tragic. These kinds of incidents were consistently associated with post-traumatic, depressive and physical stress symptoms across the sample and therefore these types of incidents also indicate potential stress points where ERs may need increased support (Behnke et al., 2019).

Organisational stressors and support

From our UK review, organisational stress factors, including unpredictable work, tiredness at work, long working hours, tensions with colleagues, not enough support from senior leaders and not enough control over work, were all associated with increased likelihood of experiencing CMD in ambulance and police studies (Appendix 5). In addition, a coastguard study explored a composite measure of negative organisation factors such as poor leadership and bullying and found that increased levels of negative organisation factors were associated with depression (Smith, 2012).

Many studies across ERs branches reported that organisational factors often generated stress exceeding the stress experienced by attending operational events (Durkin and Bekerian, 2000, Mahony, 2001). These organisational stressors, such as shift work, austerity, leadership issues may not be unique to the ER occupations, however they take place in a context of high emotional stress and trauma exposure. It is argued that the long-term

wear and tear of repeated exposure to stress, creates situations of burnout and staff attrition (Coxon et al., 2016, Ward et al., 2018)

Organisational Stressors - High/excessive workload, communication and support - The theme of high or excessive workload impacting upon stress levels and mental health is common amongst the UK papers which focused on this as an organisational stressor. Houdmont and Randall (2016) found that 27% of their police sample were working over 48 hours per week, which rose to 63% for those in Inspector roles. In another Houdmont et al. (2018) police study, 66% of the sample reported taking time off due to psychological health issues. Johnson et al. (2005) found that policing was one of the top six occupations experiencing high levels of work stress and reported the least job satisfaction. Hesketh et al. (2014b) found that 72% of police had not taken their annual leave entitlement in the last 12 months and 80% had not taken their rest days. Police samples reported they felt less able to manage their workloads compared to other civilian occupations, whilst also reporting worse work/life balance (Hesketh et al., 2014a).

Job burnout, a typical response to long-term exposure to work stressors, has negative implications for ERs, the organisation, the citizens they interact with, as well as the community more broadly (Lambert et al., 2018). In the literature, there are three aspects of burnout: depersonalisation (characterised by a feeling of dissociation from oneself, or the world around oneself), personal accomplishment (the tendency to evaluate oneself negatively), and emotional exhaustion (emotional resources depleted) (Hawkins, 2001). Within a UK study, ambulance personnel reported a prevalence rate of 32% for depersonalisation, 33% for personal accomplishment and 23% for emotional exhaustion (Alexander and Klein, 2001). This is similar to international studies where a sample of US police officers scored highly on emotional exhaustion (30%), depersonalisation (56%) and approximately 33% reported low personal accomplishment

(Hawkins, 2001). Findings from another exploratory study suggest that 34% of a Canadian police sample fell into the high burnout category of “distressed police managers” (Loo, 2004).

Collins and Gibbs’ (2003) UK police study found that increased organisational pressures (including high workload, lack of consultation/communication within the organisation and inadequate support from senior leaders) led to an increase in mental health problems amongst ERs. Similarly, Sprigg et al (2007) found that ambulance personnel named training needs and poor communication as the main sources of stress in their work. A separate qualitative ambulance study found participants reported that exhaustion and burnout from emotional stressors were made worse by organisational pressures of targets, which in turn created low morale (Granter et al., 2019).

The 2015 Mind report detailed the negative impact occupational stress had on ERs’ health and wellbeing. This is also mirrored in The Frontline Review where police reported feeling the effects of excessive workload and long working hours on their mental health (HomeOffice, 2019). The Frontline Review found that increasing demand and decreasing capacity together with frustrations of disproportionate administration demands, contributed negatively to the wellbeing of frontline police officers. Additionally, the report found that frontline staff were not given sufficient time or space for activities positively impacting upon their mental health and overall wellbeing, such as physical activity, counselling, training and development, time for decompression, adequate debriefing, and co-worker support.

From our international review, a study of US police officers suggested that occupational stress was a stronger predictor of psychological distress and PTSD, than the cumulative exposure to critical incidents (Lieberman et al., 2002, Gershon et al., 2009). A sample of US firefighters involved in the aftermath of 9/11 showed that workplace stress, particularly low job control and poor social support, increased the negative effects of

the traumatic exposure on psychological distress (Bacharach and Bamberger, 2007). Mirroring these findings in a physiological setting, a French study of ambulance dispatchers showed that work stress led to hypersecretion of the stress hormone cortisol (Weibel et al., 2003).

Conversely, perceived organisational support increased wellbeing, morale and retention in UK ambulance and fire studies (Soh et al., 2016, Boag-Munroe et al., 2017). International studies of ERs also reported that as supervisor support increased, job satisfaction increased, and both organisational and operational stress decreased (Kula, 2017, Nalla and Kang, 2012, Cowman et al., 2004). Furthermore, social support was repeatedly found to act as a protective factor in managing reactions to traumatic incidents in a Canadian firefighter setting (Regehr et al., 2003b). Lack of such support not only predicted depression (Regehr and Millar, 2007), but also through diminishing job satisfaction, it was found to indirectly increase intentions to leave (Brough and Frame, 2004, Adebayo and Ogunsina, 2011).

A recent US study comparing PTSD symptoms amongst ERs versus members of the community after exposure to Hurricane Sandy found that responders had lower PTSD symptoms, compared to members of the community. The proposed explanation for this was that the psychosocial factors involved in ER professions, such as camaraderie and informal co-worker support are thought to serve as protective factors against developing PTSD (Gonzalez et al., 2019). Furthermore, the majority of a Canadian paramedic sample that regarded their supervisors as unsupportive and as a source of stress, were more likely to experience depression (Regehr and Millar, 2007). In line with this, a US study of police officers found that social stressors arising from interactions with civilians or suspects, and co-workers or supervisors, were associated with higher turnover intention, psychological distress, and emotional exhaustion (Adams and Buck, 2010,

Maertz Jr et al., 2007). This was also consistent amongst a rural sample of US police officers (Page and Jacobs, 2011).

A common theme arising from UK studies is the positive effect on wellbeing associated with ERs' sense of control over their jobs and decision-making in their lives. For example, police gave more discretionary effort when they felt in control of their work and lives (Hesketh et al., 2016), and were more able to cope with shift work (Smith and Mason, 2001). Police and fire personnel who believed they had more control of their life, experienced reduced perceived stress (Ward et al., 2018). These findings are consistent with international research where a lack of control and self-efficacy was associated with reduced job satisfaction and increased occupational stress (Regehr, 2009). A study of US police officers found that the officers' amount of freedom, discretion and independence on the job, increased job satisfaction, in turn reducing job stress (Miller et al., 2009).

Social support - International research found that ERs who have been in their role longer, may be at a higher risk of mental health problems and yet receive less support from senior managers, which may exacerbate the risk of illness. For example, police call handlers were shown to be at an increased risk of PTSD the longer they had been employed (Regehr et al., 2003b). A recent study of US police officers found that higher ranks not only experienced more job stress, but rated their working environment as more negative, and received less co-worker support (Tsai et al., 2018). Equally, a Canadian firefighter sample found that experienced employees received lower overall social and supervisory support (Regehr et al., 2003b).

Given the breadth of research emphasising the impact of organisational support and social support for ERs' mental health and the affect it can have on intentions to leave, it is a salient factor for researchers and policy makers to take into account. The nature of the job (e.g. shift work)

could impact ERs abilities to maintain relationships outside of work (Singh and Kar, 2015); and the heavy workload may affect their relationships with colleagues and supervisory duties. UK research identified leadership and senior support as key protective factors in wellbeing and mental health outcomes (Collins and Gibbs, 2003) and therefore should be a point of interest for policy makers.

Other stressors/associations - Unplanned or unexpected retirement is highlighted as a key point that negatively affects police personnel's mental health and wellbeing. Cameron and Griffiths (2016) qualitative study found negative outcomes associated with early retirement, where individuals described inadequate time to prepare for loss of finances and/or status and where the lack of control they had over their exit made them feel betrayed, resulting in low mood and anger. Black et al. (2013) found that unplanned retirement not initiated by the individual was associated with increased CMD and PTSD among a sample of police officers.

Two qualitative studies found that part time work for police officers was identified as a job role with challenges (Dick, 2010, Dick, 2015). Part time personnel felt they were perceived in negative ways by their colleagues and assigned less demanding work than their seniors. As a result, they reported feeling guilty and judged for their perceived lack of contribution to their team which affected their self-esteem. A study of new mothers reported that they felt their part time transition affected promotion prospects and they felt let down by managers (Dick, 2010, Dick, 2015).

Two UK qualitative studies found that gay police personnel and lesbian firefighters normalised their gay and lesbian identities to fit the prevailing masculine culture amongst their co-workers which could negatively affect their wellbeing (Wright, 2008, Rumens and Broomfield, 2012). Heterosexual female firefighters in interviews reported unwanted sexual attention and stereotyping, and harassment was experienced by

both lesbian and heterosexual women (Wright, 2008, Rumens and Broomfield, 2012). Hence retirement/transition, part time work and LGBT status have been identified as specific issues that may affect ERs wellbeing and mental health.

KEY HIGHLIGHTS

- ♦ From the systematic review, organisational stressors (including excessive workloads and lack of senior support) were found to negatively impact ERs mental health and wellbeing, more than critical incident stressors (such as potentially traumatic accident scenes).
- ♦ Organisational support, good leadership and social support were associated with better wellbeing, morale, mental health and retention outcomes in ER studies.

3.3 Why might some Emergency Responders respond differently under similar pressures?

Coping methods

ERs may utilise different forms of coping methods and therefore have different mental health and wellbeing outcomes compared to other ERs and the general population. From our UK systematic review, studies consistently reported the use of both problem-focused coping methods¹⁰ and emotion-focused coping¹¹ (Brown et al., 2002, Smith, 2011, Young et al., 2014, Grubb et al., 2015). One study assessed appraisal-based coping¹² (Shepherd and Wild, 2014). Thirteen studies (both quantitative and qualitative detailed below) examined coping methods utilised in ER samples and the relationship these had with psychological outcomes.

Positive and negative coping strategies - UK study participants commonly reported talking with colleagues post incident as a coping strategy (Alexander and Klein, 2001, Smith, 2011, Mawby and Zempi, 2018) and did not want immediate engagement with professionals post incident (Ørner, 2003). A fire service study encouraged the 'physical togetherness' of watches to utilise internal social support as a coping method (Hill and Brunnsden, 2009). In a study across police, fire and ambulance, 20% of the sample used strategies that were not dependent on talking about the issue, with one in three not wanting to talk to others (Ørner, 2003). These mixed results are consistent with Mind's 2015 survey findings where ambulance personnel reported that talking to friends and family was a commonly used coping strategy (64%), but, isolation (58%) and alcohol/ substance use (28%) were also prevalent amongst ambulance personnel.

One fire service study found that problem-

focused coping or approaching a problem 'head on' was associated with decreased psychological distress (Baker and Williams, 2001). A study conducted by Brown et al. (2002) suggested that both problem and emotion-focused methods may be successful when used differentially depending on the level of trauma experienced. For example, they found that decreased psychological distress was associated with emotion-focused coping at lower trauma levels, and problem-focused coping at higher trauma levels (Brown et al., 2002). One ambulance study specifically investigated appraisal-based coping. The study found that ambulance personnel who had positive appraisals of problems on call outs reported less distress, coped better and had higher levels of objectivity. The study concluded cognitive reappraisal methods may help ambulance personnel on call outs to manage stress and improve coping methods (Shepherd and Wild, 2014). Conversely a fire service study found that individuals who believed incidents were out of their control and coped by using avoidance techniques, reported increased psychological distress (Brown et al., 2002). Additionally, qualitative interviews with police working in child exploitation investigations reported the use of maladaptive coping techniques such as smoking, alcohol and avoidance as coping strategies (Ahern et al., 2017).

Overall the studies suggest that coping strategies should be taught to ERs and results show positive wellbeing outcomes associated with informal social support, problem-focused, emotion-focused, and appraisal-based coping strategies. Overall, there may be utility in understanding the resilience profile of ERs who cope well. Davies et al. (2008) qualitatively investigated the profile of resilience in a sample of community first responders and found those that cope well (i) tend to recognise the control they have in situations; (ii) are realistic about limiting factors; (iii) are learning orientated; and (iv) are emotionally detached.



Posttraumatic growth (PTG)

The negative consequences of experiencing trauma, first or second-hand, only represent a possibility amongst an array of other posttraumatic outcomes (Shakespeare-Finch et al., 2003). Most individuals exposed to trauma do not develop maladaptive responses (Sareen, 2018), yet traditionally research has focused on these negative effects, as they can be detrimental for the individual, their family, and society at large. International research has examined the positive changes that individuals often report, for example, increased compassion, improvements in relationships, enhanced views of self, and shifts in perspective and outlook on life. These changes are referred to as posttraumatic growth (PTG) (Stockton et al., 2011). This has not, to our knowledge, been investigated in ER UK research.

Australian research with ambulance personnel showed that whilst few reported no PTG (1%), the majority (99%) perceived that they had experienced at least one positive change as a result of work-related traumatic experiences. The most common reported positive outcomes were regarding (i) the perception of one's own personal strength, (ii) improved relationships with others (iii) spiritual changes and new possibilities (Shakespeare-Finch et al., 2003). The same sample revealed that personality traits such as extraversion, openness to experience, agreeableness, and conscientiousness were related to PTG. In addition, changes in relating to others and perceiving new possibilities, were seen as useful adaptive coping strategies that could facilitate PTG (Shakespeare-Finch et al., 2005). Consistent with this, the majority of a US firefighter sample reported some form of PTG, which was again associated with adaptive coping mechanisms (i.e. taking direct action to manage their reaction). Higher PTG scores were also associated with being female, attendance at stress debriefings, occupational support, and lower PTSD

scores (Sattler et al., 2014). Conversely, a US police sample revealed that PTG was related to higher PTSD scores (Chopko, 2010, Chopko et al.). The relationship between PTG and PTSD has remained incongruent in the literature, hence additional research is needed to understand this complex relationship and whether higher posttraumatic distress increases or decreases PTG outcomes.

KEY HIGHLIGHTS

- ♦ Studies suggest that coping strategies should be taught to ERs. Studies show positive wellbeing was associated with informal social support, problem-focused, emotion-focused, and appraisal-based coping strategies.
- ♦ There is evidence that experience of trauma is not determinative of negative outcomes and that positive outcomes may also be experienced, for example, through PTG. However, the systematic review did not find any UK ER studies examining PTG.

3.4 Other mental health and wellbeing problems

Secondary traumatic stress in ERs

Secondary traumatic stress (STS) has been used to refer to the observation that those who come into continued close contact with trauma survivors may experience considerable emotional disruption and may become indirect victims of the trauma themselves (Figley, 1995). Consequently, STS can be viewed as an occupational hazard of engaging with traumatised populations (Figley, 1999). Manifestation of STS may result in symptoms similar to PTSD, such as intrusive thoughts, avoidance and hyperarousal, however it is as a result of indirect traumatising (Bride et al., 2004, Figley, 2013).

The systematic review found limited evidence from a small number of UK articles regarding STS in ER populations. Ambulance staff, Emergency Medical Technicians (EMT) and paramedics were found to experience mild and moderate secondary traumatic stress with EMT's mean STS scores similar to the levels experienced by junior doctors and staff nurses (Aisling et al., 2016). UK police working in child exploitation investigations had lower STS than US counterparts (Bourke and Craun, 2014b). In UK police, STS was associated with the use of denial as a coping method, increased smoking and drinking, increased exposure to child exploitation materials and low co-worker support (Bourke and Craun, 2014a). Tehrani (2016b) reported relatively low levels of STS in police child abuse investigators but did however find that women reported higher levels than men.

An international systematic review assessing STS in 31 ER studies found that that STS was low in ER populations with a reported prevalence of between 4% and 13% (Greinacher et al.,

2019). The review suggested different protective/risk factors, including pre-traumatic (e.g. age, gender), peritraumatic (e.g. exposure, emotional exhaustion), and post-traumatic factors (e.g. social support, alcohol and tobacco use). The authors suggested that the low STS levels could be a result of an 'immunisation' effect i.e. exposure to trauma on a consistent basis may have immunised ERs to trauma. Alternatively, they suggested that individuals may not have been honest in their responses because of stigma/career concerns and hence STS may be underestimated.

From additional international evidence, STS has been examined in personnel who work in the field of Internet Crimes Against Children (ICAC). It was found that these employees, who view disturbing online material for investigative purposes, scored higher than a sample of forensic interviewers of child abuse victims, for which the visual component of their work was attributed as a determining factor in STS outcomes (Perez et al., 2010). Over a quarter of a US ICAC sample was found to have high STS scores, yet more than half of the respondents reported coping well with the stress of ICAC work (Bourke and Craun, 2014b, Wolak and Mitchell, 2009). The length of time working with disturbing media and the greater exposure to child pornography cases, was related to the experience of STS (Perez et al., 2010). When a US ICAC sample was asked what management could do to alleviate the stress, 35% suggested reduced workload, 21% suggested job rotation (a need to cycle people out of roles involving child pornography cases), and 18% suggested increased management concern (Perez et al., 2010).

Research therefore suggests that ERs may cope well with indirect trauma, however STS could be a concern for specific groups of UK ERs. Currently in the UK, it is an area under-investigated and would benefit from future research attention.

Suicide

Our systematic review returned no academic UK studies published on suicide or self-harm in ER populations. From the grey literature, Mind's 2015 survey found 27% of ERs had contemplated taking their own lives due to work stress and poor mental health. The association of Ambulance Chief Executives (AACE) commissioned a research study to investigate concerns regarding a perceived rise in suicide rates amongst ambulance staff and to provide recommendations towards a suicide prevention intervention (Hird et al., 2019). The Office for National Statistics (ONS) indicated that the risk of suicide amongst male paramedics was 75% higher than the national average. Findings from the Occupational Health (OH) teams of the ambulance trusts studied suggested that OH access for mental health reasons increased over the two-year period (2014-2015) from 16% to 32% in patient facing staff and from 18% to 35% in non-patient facing staff. Only four out of the 13 trusts included in this sample had mental health specialists in their OH teams at the time of data collection, indicating increased needs without specialist provision.

Furthermore, two thirds of individuals who died by suicide showed evidence of depression or anxiety at the time of their death, a third had previously harmed themselves and nearly a third had died within a month of returning to work following a sickness absence (Hird et al., 2019). Mind research that found 76% of ambulance participants in 2019 reported experiencing mental ill health and that 91% reported experiencing stress, low mood, or poor mental health. These studies accentuate the need for a mental health strategy for all staff that focuses on improving mental health and preventing suicide. Reviewing suicide risks at times of increased

sickness absence (e.g. adequate return to work discussions) were recommended, as well as the close monitoring of ambulance suicide data (Hird et al., 2019).

From international findings, a nationwide US sample of firefighters revealed high prevalence rates of suicidal thoughts and behaviours, with 16% attempting suicide at least once during their firefighter service, compared to a lifetime prevalence rate range of 2%-9% in the general population, and 47% reporting suicide ideation at some point in their career, compared to a lifetime prevalence rate of 6%-14% in the general population (Stanley et al., 2015). Another US firefighter sample revealed that when social support was high there was no association between occupational stress and suicidal ideation; conversely, when social support was low there was an association between job stress and suicidal ideation (Carpenter et al., 2015). This was replicated in a study of Norwegian police suggesting that single police officers (compared to those who were married), who reported higher burnout and lower levels of social support indicated more suicidal ideation (Burke and Mikkelsen, 2007). Additionally, depressive and PTSD symptoms were related to heightened suicide risks and attempts among US firefighters and paramedics (Boffa et al., Martin et al., 2017, Stanley et al., 2017). A similar finding emerged from a US police study suggesting that probable PTSD increased the risk of alcohol use and suicide ideation, and more specifically that the impact of PTSD and increased alcohol use together led to a ten-fold increase in suicide risk (Violanti, 2004). A Norwegian study of police indicated that 24% felt that life was not worth living, 6% had seriously considered suicide, and 0.7% had attempted suicide (Berg et al., 2003). Research is needed to

understand the prevalence of self-harm, suicidal ideation, suicide attempts and completed suicides in UK ER populations.

Alcohol consumption

Our systematic review found one study that reported the prevalence of alcohol use in UK ER populations. The study with UK data found that Australian police officers had higher mean alcohol use levels using the Alcohol Use Disorders Identification Test (AUDIT) of 7.16 (alcohol abuse scores 8+ requiring alcohol brief intervention), followed by New Zealand (M=6.95), UK (M=5.95), Canada (M=5.17), and US (M=4.18) (Ménard et al., 2016).

Caution should be taken when comparing these results, as location, rural living, and sampling may confound the demographic patterns found. International research in developed countries has noted that police and fire organisations are commonly characterised by a drinking culture, usually perceived to be an informal method of reducing occupational stress and increasing social support (Bacharach et al., 2008, Brough et al., 2016). Consistent with this, alcohol consumption amongst police officers has been associated with job stress (Kohan and O'Connor, 2002). In a US sample of urban police officers, 18% of males and 16% of females reported alcohol use resulting in adverse consequences and 8% of the total sample met the criteria for lifetime alcohol abuse and dependence. The sample were more likely to engage in a binge-drinking episode than the general population, and this effect was stronger in females (Ballenger et al., 2011).

Some studies have found a link between work-related stress and heavy drinking in ERs. For example, individuals reporting low perceived organisational support were more at risk of heavy

drinking compared to those who perceived high organisational support (Lambert et al., 2012). In firefighters, problematic drinking or 'drinking to cope' has also been found to depend on organisational factors, such as the adequacy of resources in a fire unit (e.g. preparedness training for incidents, supervisory support) (Bacharach et al., 2008).

Individual differences in alcohol consumptions were highlighted in a study of US police officers, whereby young, white, single officers who worked dayshifts were found to engage in the highest levels of hazardous drinking. These young officers were found to drink on fewer occasions, than other groups, but consumed more alcohol per occasion (Lindsay and Shelley, 2009). Additional research highlighted that male US police officers reported higher instances of 'binge drinking' compared to other occupations; although it was found that they did not consume alcohol more frequently, nor did they exhibit a higher likelihood of dependency, compared to others (Weir et al., 2012).

Further research on this topic is warranted given the overall finding that 25% of police officers in Western countries (Australia, UK, USA, Canada, New Zealand) demonstrated some form of problematic or binge drinking, and those with the highest alcohol abuse scores were less likely to seek help (Ménard et al., 2016). We are aware of some research that is currently being undertaken in this area by The Addiction Research Group at The University of Liverpool (investigating addiction in different occupational groups, including the police). This work provides direction for the development and implementation of evidence-based alcohol intervention programmes which address the needs of ERs – specifically social and supervisory support.

Shift work and sleep quality

Sleep disorders are often challenging to diagnose (Stores, 2003). Untreated sleep disorders, in combination with high occupational stress and night shifts, could have detrimental effects on the health and safety of ERs, posing a risk to the public, and the organisation as a whole (Rajaratnam et al., 2011, Senjo, 2011).

Few UK studies examined the effect of shifts and sleep quality in relation to mental health or wellbeing outcomes. Smith and Mason (2001b) found that adequate sleep was not a determining factor in adaptation to shift work in police officers but those with increased perception of control over work and life were most able to adapt to shift work. The authors proposed that those perceiving high levels of control may have exercised more adaptive behaviour to ameliorate the disordered effects of shift work. Smith and Mason (2001a) found limited evidence that older age may be linked to degraded tolerance for shift work. On-shift drowsiness and poor sleep quality around night shifts was more evident in the older age group (40+ years). In one UK qualitative study, police reported sleep problems, disturbed sleep, lack of sleep, and sleepless nights due to shift patterns (Duran et al., 2019).

From the international literature, a study of US police officers found that the prevalence of sleep disorders was as high as 40% for which they were not diagnosed or receiving treatment (Rajaratnam et al., 2011). This finding is consistent with another US study of police officers which reported a prevalence rate of 44% for sleep disorders (Desta Fekedulegn et al., 2016). Police officers often work night shifts which can lead to poor sleep quality and a heightened risk of injury on the job (Violanti et

al., 2012). The prevalence of poor sleep quality for those working during the day was lowest (44%), followed by those working in the afternoon (60%), with the highest prevalence found amongst officers working night shifts (69%) (Desta Fekedulegn et al., 2016). Furthermore, police officers in another US study who worked night or evening shifts reported more critical incidents, and more occupational stress than officers working in the day (Ma et al., 2015).

In fire departments around the world, long shifts (day and night) have been adopted as part of the occupation. One study administered sleep diaries and surveys to a US fire department before and after the implementation of the 48/92 schedule (i.e. 48 hour shifts followed by 92 hours off duty) (Caputo et al., 2015). The results showed that firefighters from departments implementing the 48/92 shift felt more refreshed, were able to sleep more, and had a decreased daytime sleepiness. In addition, they found trends of improved job satisfaction, less work-family conflict and decreased psychological problems (Caputo et al., 2015). Although most fire stations in the UK already implement a similar shift pattern, it would be beneficial to test the effects of this in the UK.

The evidence outlining the importance of sleep in mental health and wellbeing is immense. Other than affecting stress, poor sleep quality was found to increase depressive symptoms (Ma, 2011), risk of injury in US police officers (Violanti et al., 2012), and traumatic stress symptoms (Mohr et al., 2003). In firefighters, sleep deprivation was found to correlate with depression, physical and mental wellbeing, and drinking behaviours (Carey et al., 2011). Hence this is an area requiring further investigation in the UK.

Finances/debt

From the Police Federation, Pay and Morale Survey 2019, almost 75% of the police sample reported that they were worse off financially now than they were five years ago and only 36% reported having enough money to cover their essentials each month, with 13% seeking help from friends and family in order to cover essentials. 50% of respondents reported worrying about their finances every day, and 17% reported seeking advice as a result (compared to 15% in 2018) (Boag-Munroe, 2019) .

Most of the participants felt that they were unfairly paid considering the hazards they faced within their job (83%) and considering the stresses and strains of their job (91%). Additionally, the majority were dissatisfied with their pension, and reported this influencing their desire to leave the police service. Just over 10% reported intending to leave the police due to their morale, pay and benefits, and the detrimental impact of the job on their health and wellbeing (Boag-Munroe, 2019). Although our systematic review found that individuals who underwent unplanned or unexpected retirement endured financial loss resulting in low mood and anger (Cameron and Griffiths, 2017), financial wellbeing issues such as debt, gambling and general financial worries have not been explored in UK academic research. This is a vital area for future research to understand the prevalence and impact of financial worries, debt and gambling on mental health and wellbeing of UK ER populations.

KEY HIGHLIGHTS

- ♦ Secondary traumatic stress found at low levels in UK and international ER studies.
- ♦ International evidence suggests: ERs may be at heightened risk of suicidal ideation, suicide attempts and completed suicide; association of ER alcohol misuse, binge drinking and job stress; and impact of ER shift work on sleep.
- ♦ Little, if any research addressing self-harm, suicidal ideation, suicide attempts and completed suicide, secondary traumatic stress, alcohol and substance misuse, shift work and sleep, finance and debt.

RECOMMENDATION

- ♦ There are many ER health and wellbeing areas with little or no research. Future work should focus on these research gaps, these include: self-harm, suicidal ideation, suicide attempts and completed suicide, secondary traumatic stress, alcohol and substance misuse, shift work and sleep, workplace bullying and discrimination, finance and debt and positive outcomes.



3.5 Landscape review and stakeholder feedback

While the systematic review identified wellbeing and mental health issues that have been identified in the published research literature, the landscape review sought to identify what these issues are perceived to be in practice. There is a general perception in the media that those working in ER roles suffer frequently from occupationally induced trauma¹³. Our internet searches showed that PTSD is an issue that many charities and non-profit

organisations are providing support for (see section 4.3). However our interviews found that PTSD was not the main issue of need in ER populations. Whilst some interviewees acknowledged that ER roles involved exposure to traumatic situations and suggested that some ERs did suffer as a direct result of this, it was not the main cause for concern in most cases. Instead, most interviewees stated that ERs predominantly needed help for mental health or wellbeing issues that arose from more general problems at home or in the workplace, such as relationship difficulties and unreasonable job demands. Table 3 highlights the main wellbeing issues that were identified by the interviews.

Table 3 - Quotes illustrating commonly mentioned wellbeing issues amongst Emergency Services

Highlighted Issues	Quotes
General life issues (e.g. marriage/relationship breakdowns, debt or financial issues)	<p>“It tends to be the everyday trials I guess of life... marriage breakdown or problems with management or falling out with friends on station, not getting enough sleep, financial problems... family bereavements, parents for example or caring responsibilities. But it tends to be daily struggles for firefighters experiencing mental ill health rather than the actual operational incidents” (ID 21, Fire)</p> <p>“The bulk of mental health issues I see within the police are nothing to do with what people have seen or experienced in their role as a police officer. It’s because their wife’s left them, they’re drinking too much, they’ve got too much bad debt, absolutely; all the other reasons why people in the general population would have a mental health problem. I don’t see nearly as much PTSD-type problems as people sometimes imagine” (ID 4, Police)</p>
Rapidly increasing and unreasonable job demands with little/no recognition	<p>“999 calls are at the highest level that we’ve ever seen... the demand on the police service has gone up. It’s not that crime’s gone up” (ID 10, Police)</p> <p>“They just feel a little bit just undervalued... it really starts to grate.” (ID 3, Fire)</p>

Continued overleaf

Table 3 - Continued

Highlighted Issues	Quotes
Reinforced trauma	<p>“You get a lot of ex-service personnel come into the service. And they bring their trauma in with them” (ID 26, Coastguard)</p> <p>“The resurrection of incidents that they’ve seen prior to joining” (ID 12, Mountain Rescue)</p>
Investigation anxiety	<p>“When staff are under investigation. We’re trying to tighten up over that, I think. That’s a high-risk area for lots of forces and there’s been some quite notable cases in the press over the years of senior officers who’ve committed suicide at that point... staff who are suspended over misconduct, we now do a mandatory referral to occupational health within 30 days” (ID 11, Police)</p>
Issues relating to an ageing workforce	<p>“Because they’ve changed the pension age for firefighters to 60... we now have to deal with a whole load of issues that we haven’t had to deal with before” (ID 27, Fire)</p>
Physical wellbeing	<p>“What we’re finding at the moment, there is a trend that we are seeing here in our service is that people who have been working for us for a long time, that cumulative effect is starting to manifest itself in a mental health issue” (ID 32, Fire)</p> <p>“12% of the sample size, they self-reported having three times the level of cardiovascular disease and twice the level of gastrointestinal problems and also autoimmune conditions, so things like, whether it’s arthritis or IBS, a whole range of other conditions are triggered” (ID 9, Police)</p> <p>“A question that we get asked quite a bit in terms of is there any budget to support classes around Pilates, yoga and this type of thing. So it would be quite good to focus on physical wellbeing as well” (ID 37, Ambulance)</p>

Thus, while PTSD is likely to be a problem in this cohort, it is not necessarily the only issue that needs resource or focus. From interviews it is rarely the high-stress events ERs deal with that cause a reduction in their mental health, rather it is the pressures of life and work which negatively impact upon their wellbeing. Furthermore, interviewees felt that whilst it was important to recognise that there may be elevated levels of CMD or other wellbeing issues in ERs, this tends to be for the minority of people.

“People automatically pathologize and think about the worst cause of trauma that they can imagine. And it’s actually not that, predominantly the fire and rescue services, the police certainly and ambulance certainly have higher levels of occupational stress... but actually they’re quite a healthy, resilient bunch” (ID2, Fire)

KEY HIGHLIGHTS

- ♦ Interviewees acknowledged that exposure to traumatic situations may result in PTSD, however this was not their main cause for concern in terms of ER wellbeing.
- ♦ Interviewees reported that mental health or wellbeing issues more often occurred as a result of more general life issues (rather than trauma), including relationship problems, financial difficulties, increasing job demands, and poor work/life balance.

RECOMMENDATION

- ♦ Research and support should assess organisational stressors and broader mental health and wellbeing outcomes in addition to trauma and PTSD to ensure research and support is reflective of ERs experiences.



3.6 Summary discussion - strengths and limitations

Strengths

The landscape of ER mental health and wellbeing research is encouraging and provides a good base on which to build future work. The existing research is sufficient to demonstrate distinct mental health and wellbeing challenges across these branches of ERs, specifically related to the unique experience of service and the combination of incident and operational stressors. There are indications that organisational stressors, such as workload, austerity and poor leadership support, have a greater impact on ER mental health and wellbeing compared to incident related stressors. There is also evidence building in relation to the importance of leadership and social support in managing work stress and supporting better mental health. Finally, a fair amount of research focuses on coping strategies and provides initial evidence of the importance of teaching positive and adaptive coping techniques.

Limitations

The systematic review highlighted limitations in the research evidence. Only one study was based on random sampling, therefore the majority of UK studies may be biased and findings may not be representative of the ER population of interest.

The extent of different mental health and wellbeing measures utilised across studies also makes comparisons difficult. The studies investigated sometimes used or created measures that have not been tested for their reliability, therefore we would advise future studies use validated mental health and wellbeing measures. Some studies utilise limited statistical analyses, focusing on correlation which may not take into account other confounding factors which are responsible for mental health and wellbeing outcomes. There were only two UK studies that took data from several points in time and no longitudinal cohort studies conducted in this field. Therefore cross-sectional research can only give a snapshot of experiences and cannot assess the direction of causation.

Gaps in research

In terms of research gaps, we have highlighted distinct areas for future research attention in our recommendations. Some of these research gaps include the limited knowledge we have of the long-term health outcomes of ER populations who have retired from service. There is limited research that compared outcomes across different branches of ER services to enable comparisons in mental health and wellbeing outcomes. Very few studies examined sleep, alcohol misuse or substance misuse in these populations. Certain areas of research including LGBT and BME groups were not

assessed in detail. There were no academic studies pertaining to suicidal ideation, suicide attempts, suicide or self-harm and financial wellbeing issues such as gambling and debt. There are fewer studies represented across the fire and ambulance services, and no studies assessing Search and Rescue personnel or the Royal National Lifeboats Institute (RNLI), hence we do not have any academic research evidence regarding these volunteer ER roles. Overall, there are bases on which to build and improve the UK research in this field and areas that are as yet to be investigated that would provide essential evidence moving forward.

KEY HIGHLIGHTS

- ♦ Studies used diverse and varied measures of mental health and wellbeing outcomes which made comparisons difficult between studies.
- ♦ Non-representative samples constrained the generalisability of findings to the broader ER populations.
- ♦ Study designs mostly looked at groups of people at a single point in time, therefore this limited understanding of long-term trends and causes.

RECOMMENDATION

Methodologically, in ER academic research there is a need for:

- a) Alignment across ER studies regarding use of evidence-based, validated mental health measures that are similar to allow for comparisons across studies.
- b) Representative samples assessing prevalence of mental health and wellbeing in ERs.
- c) Longitudinal studies that measure mental health and wellbeing over time to provide causal evidence and indication of long-term trends.

RECOMMENDATION

Future research should focus attention in specific groups less studied including retirees, call operators, BME, LGBTQ, volunteers, search and rescue, high risk roles and more broadly ambulance and fire personnel.

Table 4 - Summary of current wellbeing initiatives across the emergency services. The percentage of interviewees who mentioned each initiative is indicated (%), N=33), and all interviewees mentioned multiple initiatives.

1. Organisational Frameworks & Strategies	%	5. Peer Support & Destigmatisation	%
HR Wellbeing Strategy/Framework (including OK Blue Light Framework)	52	Mental Health First Aid	30
Good HR Policies	21	TRiM	46
Hindrance Stressors	6	Wellbeing Champions	42
		Formal Peer Support	27
		Lived Experience Videos	21
		Wellbeing Groups/ Staff Association	15
		Informal Peer Support	12
2. Health Promotion & Psychoeducation			
Awareness Days/Events	42	6. External support	
Fitness Support/Groups/Gym access	18	Signposting for Mental Health (primarily to charities)	82
Wellbeing Vans	15	Employee Assistance Programs	58
Wellbeing Bulletins/Leaflets	12	External Counselling or Specialist Support	33
Suicide Awareness and Prevention	12	Signposting for Debt Support	27
Weight Management (Slimming World)	9	Outsourced Occupational Health	9
Nutrition Support	6	Outsourced Physiotherapy	6
Campaigns		NHS or GP Referrals	6
Mind Blue Light Program	18	Counselling Helpline	3
Time to Talk Campaign	15		
Dying to Work	3	7. Online support	
Breaking Down Barriers	3	eHealth (Apps)	36
Sit Less Campaign	3	Intranet Wellbeing Sites/Pages	18
		Fitbits	6
3. Prevention			
Resilience Courses	30	8. Funding	
Health Checks/Assessments	24	Benevolent Funds/Grants	30
Proactive Psychological Screening	21		
Fitness Assessments	15	9. Training	
		Manager Wellbeing Training	27
4. In-house Support & Treatment		New Recruit Wellbeing Training	3
In-house Wellbeing Team	30		
Wellbeing Classes, Workshops or Group Sessions (inc. Mindfulness)	21	10. Trauma procedures	
Internal Occupational Health	15	Critical Incident Debriefing	21
In-house Counsellor or Mental Health Specialist	15	Defusing	12
In-house Physiotherapy	9		
In-house Medical Staff	9	11. Environment	
		Wellbeing Room	9
		Dogs at Work	3

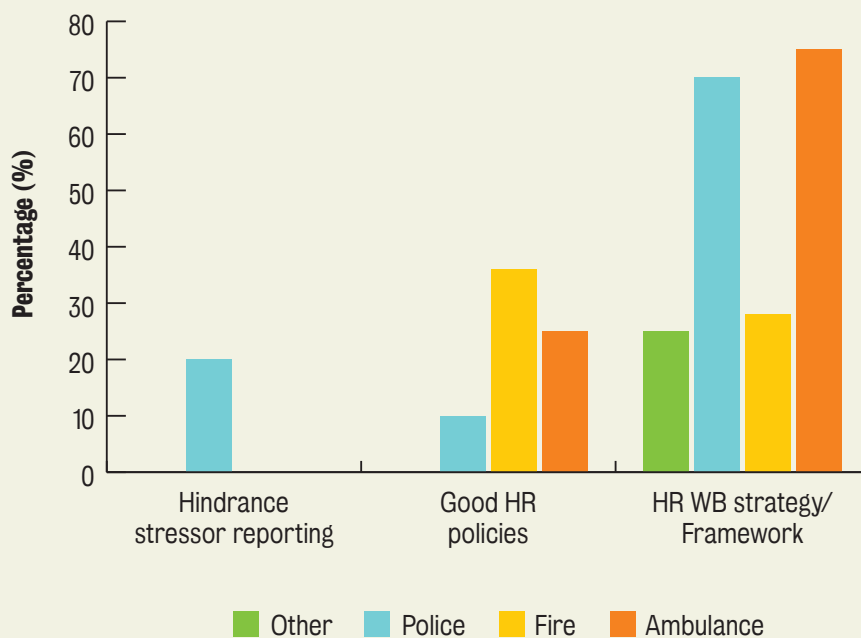
1. Organisational wellbeing frameworks and strategies

One of the most common wellbeing initiatives that interviewees noted in their service was having a specific wellbeing strategy or framework. This was most common for the fire (75%) and police (70%) service (almost double that of the other services). While the specific nature of these frameworks was not always discussed, Oscar Kilo and the ‘Blue Light Framework’ were often mentioned. Oscar Kilo is an initiative that was initially funded by Public Health England, and is an online platform designed to bring together those responsible for wellbeing in the emergency services, to promote the sharing of better practice and learning resources

across the sector. It is now also the home of the National Police Wellbeing Service (NPWS), which was “created to provide support and guidance for all police forces to improve and build upon wellbeing within their organisation”¹⁴.

The Oscar Kilo platform was originally created and designed to host the Blue Light Wellbeing Framework, an online, interactive self-assessment tool that allows organisations to audit and benchmark themselves against a set of sector-specific standards to establish their level of wellbeing provision¹⁵. The framework comprises six sections that cover core aspects of wellbeing: leadership; absence management; creating the environment; mental health; protecting

Figure 3 -The percentage of interviewees within each service (N: ambulance = 8; police = 10; fire = 11; other = 4) who mentioned having a specific organisational wellbeing strategy, or framework that they were working to.



the workforce; and, personal resilience. While originally developed for the police service by the police, it has also been taken up by the fire service and may serve as a good model of self-assessment for other organisations. Indeed, members of both services mentioned that this type of self-assessment strategy was particularly helpful:

“What we do in-house, we have a health and wellbeing framework. And the overarching approach is very much mirrored with that of the police... we are on Oscar Kilo and tied in with the police Oscar Kilo team... I quite like the accreditation assurance” (ID 20, Fire)

While it is likely that all of the services have some form of wellbeing strategy as part of their provision, and that the proportions presented here are under-representative (for example, the Oscar Kilo website reports that all police forces in the UK have signed up to their service, as have most of the fire services), this may be indicative of the perceived importance and visibility of these types of strategy among the difference organisations.

In addition to having a general wellbeing framework, several interviews flagged that having good HR policies was a central component of their wellbeing strategy.

“If you have your HR with good key policies like agile working, flexible working, ageing workforce, all of those things, it sort of, that is what we consider is the core of wellness.” (ID 16, Police)

A number of policies were highlighted as being particularly beneficial over a range of interviews, including flexible working options, carers’ contracts, supportive welfare arrangements, domestic emergency leave, bereavement leave, alternate or restricted duties, good absence management and phased return strategies. One interviewee summed up why these policies are likely to play a role in wellbeing, by couching this in terms of organisational justice, stating:

“Organisational justice is... to do with how we treat people, or more importantly their perception of how we treat them... And so within that we’ve got a whole host of areas, things like reward and recognition, ability to get leave and rostering, our grievance procedures, the promotion processes is a big one. How well the organisation aligns to their own values, so are we an environmentally friendly organisation, things like that. All those things affect how somebody can connect with the organisation and feel proud of it and want to deliver for it. And of those things, the fairness things were identified as having the most significant impact on people’s attitudes and motivations... that was where the biggest negative impact was.” (ID 28, Police)

Thus, having good and fair policies and procedures, and ensuring they are both transparent and successfully adhered to is likely to have a positive effect on employee wellbeing.

‘Hindrance stressors’ at work have also been linked to occupational stress; that is, work-related demands or circumstances that constrain or restrict an individual’s ability to carry out their work to an optimal level. They are associated with negative outcomes, including anxiety and psychological distress, and decreased motivation (e.g. Clarke, 2012).

To counter this, two of the interviewed participants have instigated a formal procedure, where staff can report hindrance stressors at work directly to management, so that they can act on them to reduce work-related barriers; the idea being that this will help to reduce occupational stressors and enhance wellbeing.

“Staff can feedback their problems... Anyone encounters something that causes them hindrance or stress at work, they can flag it up to that mailbox and we then look at how we put it right.” (ID 28, Police)

2. Health promotion and psychoeducation¹⁶

A small number of the police, fire and ambulance participants mentioned the availability of fitness initiatives (whether through sports groups, or gym access), and this was most common in the fire service. Fire and ambulance also highlighted nutritional information and support as being available to their staff, although only ambulance mentioned having weight management schemes. These differences may be due to the differential amount of physical activity the different services undertake; for example, the very physical nature of the fire service, and the sedentary nature of some ambulance work.

Awareness raising days and events were the most commonly mentioned wellbeing activities that all the services undertook (although still mentioned by fewer than half of the interviewees):

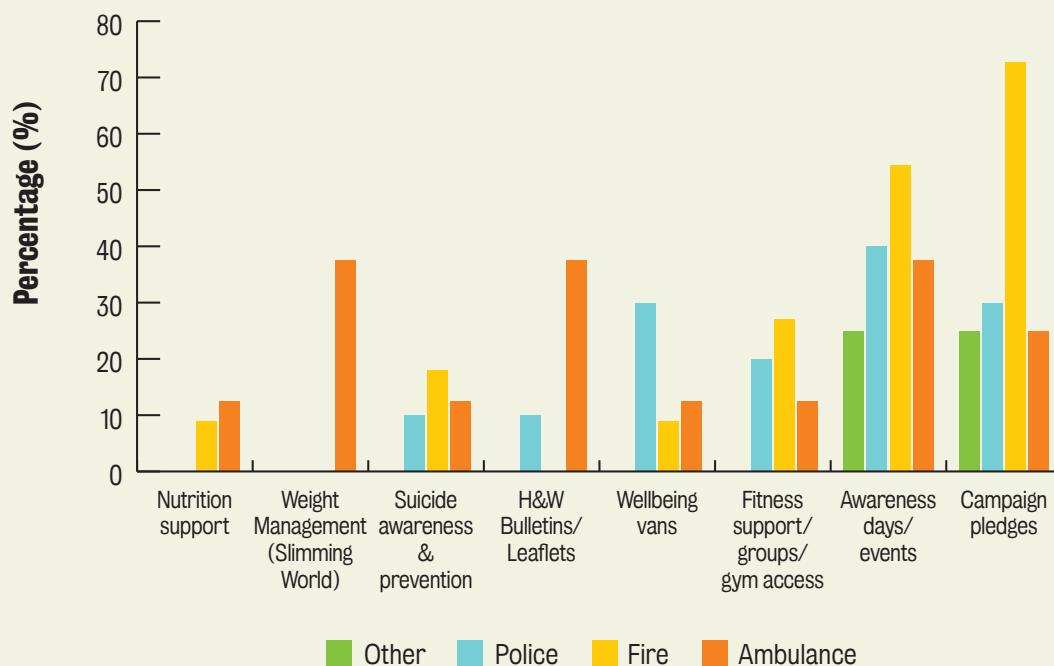
“we also do a series of roadshows where our fitness advisor and our health and wellbeing advisor will go out and do presentations to teams” (ID 27, Fire)

“we just held our first mental health conference last October” (ID 11, Police)

Many had signed up to national campaigns (such as the Blue Light ‘Time to Change’ Pledge, or the ‘Time to Talk’ campaign). These were particularly popular in the fire service. The popularity of these types of campaigns and pledges may be a due to the recognition status they offer; giving organisations a way to visibly make a commitment to changing the way they deal with and support wellbeing and mental health in the workplace. It offers a formal sign of action to both employers and employees alike, which is likely to directly benefit both groups.

“We signed, very early... to the Mind Blue Light Time to Change Pledge. So we have a very visible leadership around mental health, mental wellbeing and that’s important, and it’s something that we encourage people to talk about within the workplace.” (ID 27, Police)

Figure 4 – Percentage of interviewees within each service who referred to using different health promotion and psychoeducation initiatives. (N: ambulance = 8; police = 10; fire = 11; other = 4)

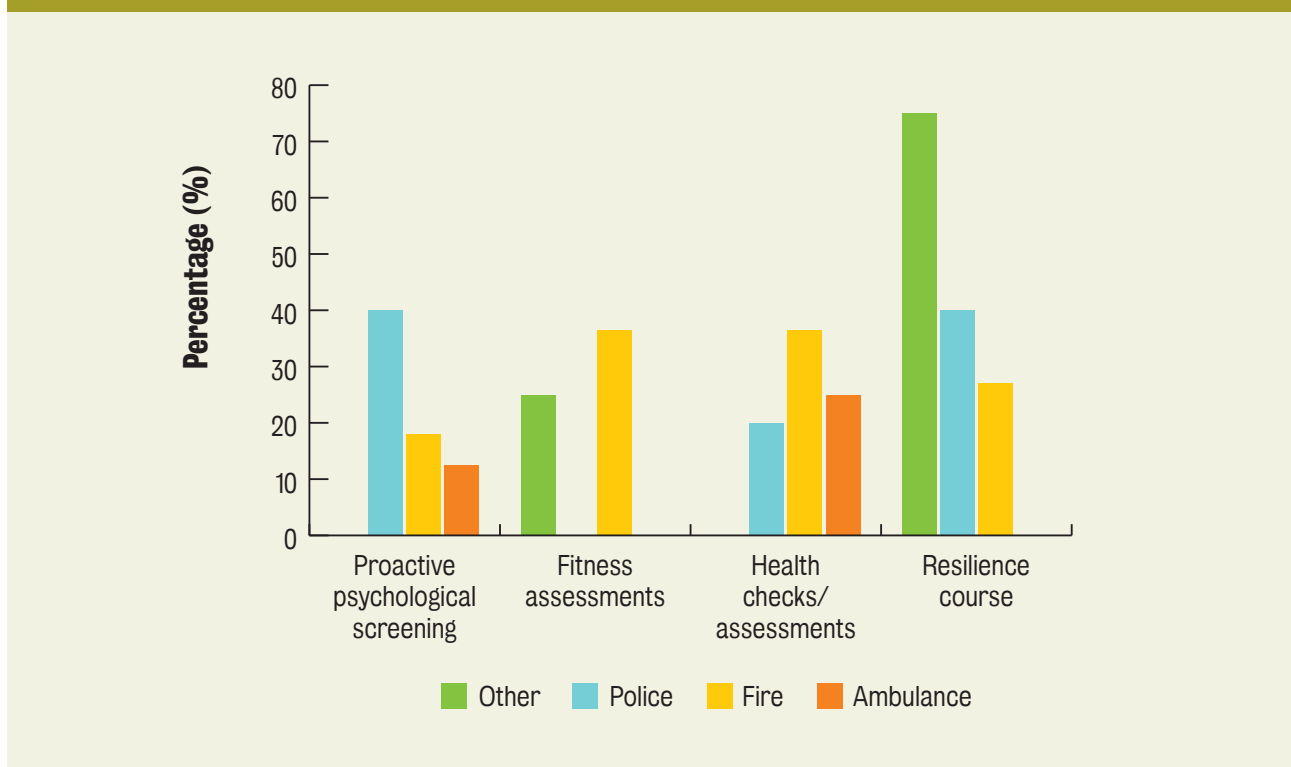


3. Prevention activities

Some form of prevention activity was undertaken by members of each service. However, the nature of those activities varied, depending on the organisation. Psychological screening was mentioned most by the police, who also offered health assessments and resilience courses. Fitness assessments were most commonly carried out by the fire service and RNLI. Interestingly, the ambulance service only mentioned engaging with psychological support in one instance (in terms

of psychological screening), with their emphasis resting more on physical health support. Thus, the priorities of the different services, in terms of health and wellbeing, are likely to be varied, and are at different stages of development and support. In terms of resilience, investment was most commonly seen in the volunteer emergency services, in particular: mountain rescue and the RNLI. Although, the police and fire service also mentioned some resilience initiatives.

Figure 5 – The percentage of interviewees within each service who described mental health prevention strategies as part of their wellbeing offerings (N: ambulance = 8; police = 10; fire = 11; other = 4)

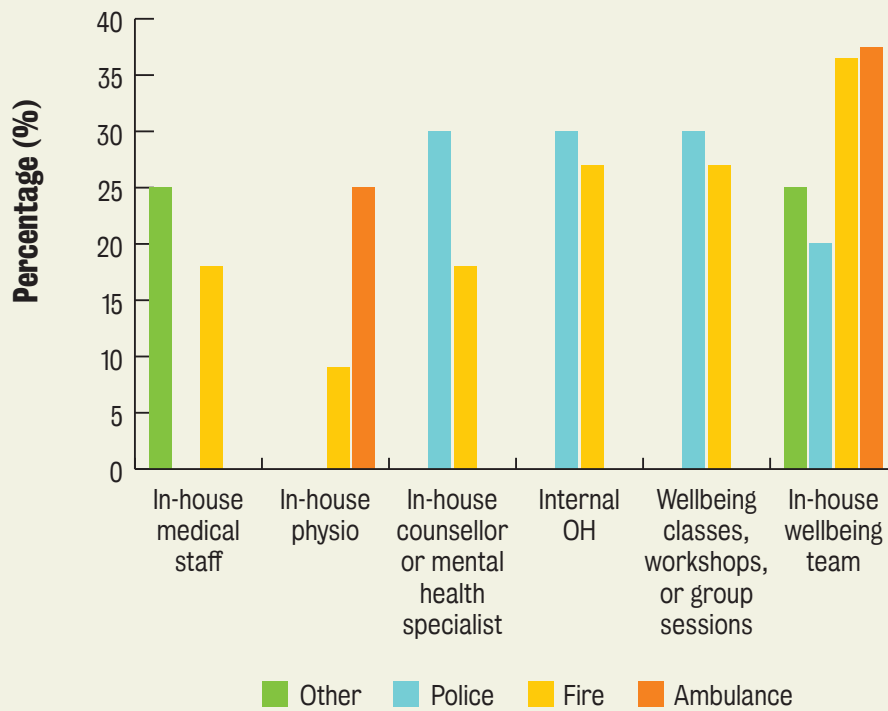


4. In-house treatment and support

Overall, there was not a huge amount of in-house support discussed in the interviews. That said, just over a third of ambulance and fire participants mentioned having a dedicated Wellbeing Team in-house. Fire and police discussed having in-house Occupational Health, or an in-house counsellor (or

other mental health specialist) and were the only services who mentioned on site wellbeing classes, workshops or groups sessions (such as Mindfulness). In contrast, the ambulance interviewees mentioned on-site physiotherapy, suggesting an increased importance of muscular-skeletal issues (over psychological issues) in this group.

Figure 6 - The percentage of respondents within in service who described having internal support or treatment options for their staff (N: ambulance = 8; police = 10; fire = 11; other = 4)



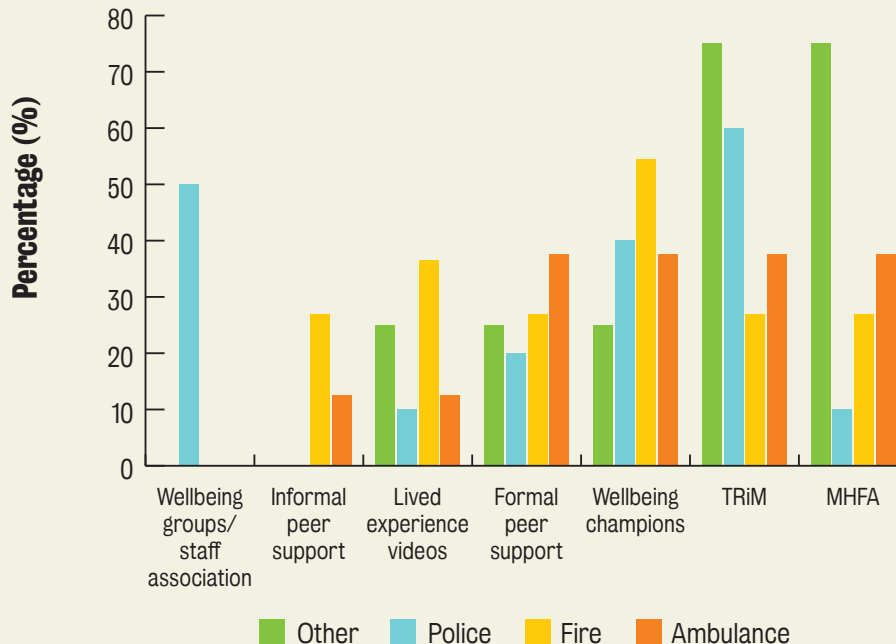
5. Peer support and destigmatisation activities

This is an area with more consistent activity across the different emergency services. Most of the interviewees mentioned using some form of peer support strategy, whether through Wellbeing Champions (based on Mind’s Blue Light Wellbeing Programme (BLWP)), or through some other formal peer support structure. And since the closure of the BLWP, some respondents mentioned moving their approach over to Mental Health First Aid (MHFA):

“We did have a cadre of champions from their Blue Light Programme initiative, where we’ve worked to now, because Mind as you probably have lost their funding in that respect, so we’re rebranding our approach to that, and going for mental health first aiders.” (ID 3, Fire)

MHFA is a training programme that teaches people how to recognise and support someone with a mental health issue. Mental Health First Aiders are not able to treat or diagnose mental health

Figure 7 - The percentage of interviewees within each service who mentioned peer support and destigmatisation activities. (N: ambulance = 8; police = 10; fire = 11; other = 4)



conditions, but they are taught how to provide initial support and (where appropriate) how to signpost to relevant help. MHFA was mentioned by almost all participants belonging to the other emergency services (notably: HM Coastguard, mountain rescue and RNLI), and by a third of ambulance interviewees. However, only one police representative mentioned this initiative.

In contrast, TRiM was most commonly mentioned by the police and the volunteer services. Peer supporters, or “TRiM practitioners”, are trained to recognise PTSD symptoms and psychological distress, and can deliver initial support, and identify those who may be in need of further support (Greenberg et al., 2011). Like other peer support programmes, it assumes that peers will be better able to connect with those who have been through traumatic events, as they are more aware of the occupational context, and have often been through similar experiences. It is thought that this shared knowledge and language may enable individuals to open up and discuss their feelings about these events (Jones et al., 2003). Despite this, TRiM received mixed reviews amongst our interviewees. While many felt that it was a good structure to have in place, others were less keen, and some felt it was too superficial:

“We have a TRiM manager who does quite a lot of work... it’s one of those interesting dynamics, some areas are very resistant, some areas are really keen. Because we’re a completely national service... so we have a really different dynamic going on with teams and... the local community and that can have a real impact on how they view things like TRiM.” (ID 26, Coastguard)

“A lot of people have TRiM in place but it wasn’t working. And that’s what we were finding. And when we gave the options to our senior officers it was we can do TRiM which is, it seems very much a tick box. And our services do not like tick box exercises.” (ID 21, Fire)

Wellbeing groups and staff associations were only mentioned by the police, and more informal peer support only came up with the fire and ambulance services.

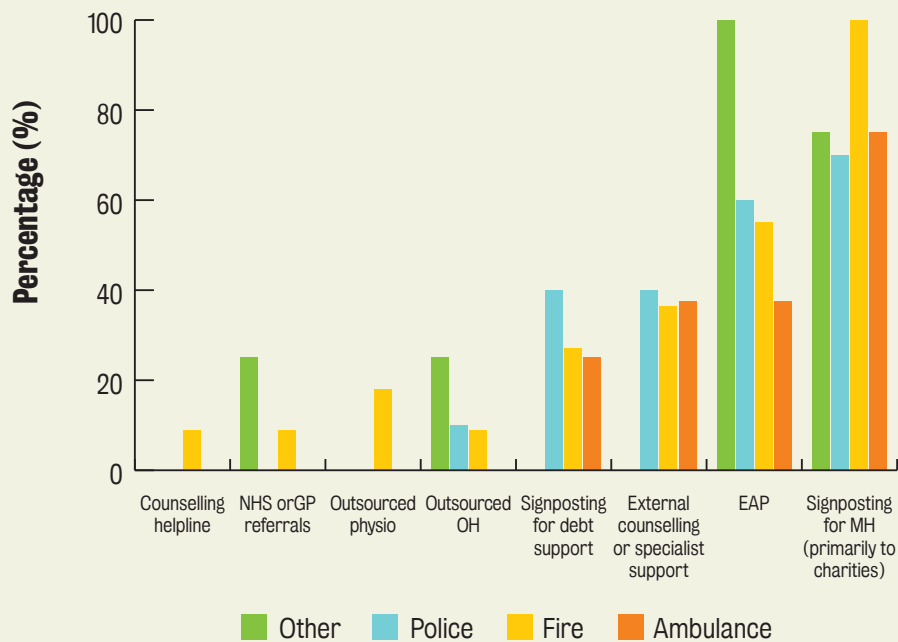
Interviewees from all the services also mentioned using a relatively simple technique to promote destigmatisation: providing videos of colleagues (often those in senior positions) who have experienced mental health difficulties, sharing their experiences. This technique was unanimously considered to be positive in helping to break down stigma and promote a more open culture.

6. External support

The use of external organisations to support wellbeing was the most frequently reported avenue of support, and this practice was most common for

supporting mental health needs. Signposting was primarily to charities, most commonly: The Fire Fighters Charity (11/11), Police Care (7/10), the Ambulance Staff Charity (6/8), and Mind (21/33).

Figure 8 - The percentage of interviewees within each service who mentioned external support strategies (N: ambulance = 8; police = 10; fire = 11; other = 4)



Spotlight: Overview of key charities

Ambulance Staff Charity

www.theasc.org.uk

The Ambulance Staff Charity (TASC) supports “the ambulance community with their mental, physical and financial wellbeing during times of need”. They are the leading UK charity providing support to all currently serving and retired ambulance staff, their families, and ambulance service volunteers. They also host the National Ambulance Memorial Service every two years. Their services include counselling (providing funding for up to six sessions with a qualified and local counsellor), support with trauma and PTSD, physiotherapy (providing funding for up to ten sessions with a local physiotherapist, or arranging a treatment plan in a residential facility), debt advice

(delivered over the phone), financial grants, bereavement support and general wellbeing advice (their online platform allows staff to access information and self-guidance on a range of welfare topics from handling anxiety and stress, to stopping smoking and substance abuse). The offer of treatments plans in a residential facility is delivered in partnership with The Police Treatment Centres and Fire Fighters Charity treatment centres (illustrating collaborations across the sector). The service is also open to retired members. They cover England, Scotland, Wales, Northern Ireland, the Channel Islands, the Isle of Man and Gibraltar.

Fire Fighters Charity

www.firefighterscharity.org.uk

The Fire Fighters Charity (FFC) supports those working in the fire service, volunteers (although provision is slightly different) and families. They offer support in three main ways: mental, physical and social wellbeing. Their support is delivered in a range of ways; over the phone, online, in the beneficiary’s local community or at one of their centres: Harcombe House in Devon, Jubilee House in the Lake District or Marine Court in West Sussex. Beneficiaries who require support reach out to the FFC and a bespoke course of support is then designed for the individual. They offer home visits and have “living well groups” in communities, these are run by volunteers. They also provide support for families, including beneficiary families who have children with complex needs but also families who are struggling and need some “quality time together”. They offer an

integrated service and take a holistic approach to wellbeing with an emphasis on modern 21st century families (recognising families are now complex and broad support is needed). The FFC is a crucial support for those transitioning to retirement and beyond. They are a key resource for those we spoke with and absorb a huge gap in provision. They are funding a piece of research (with Nottingham Trent University) around social transitions into retirement and are supporting FRS across the UK to better support their staff with pre-retirement training (3-5 years before they transition). They also have an in-house team of psychological therapists, clinical psychologists and physiotherapist experts and are about to offer a nursing service. They are CQC-registered for nursing and personal care so will soon provide 24/7 nursing care for individuals with complex needs.

Police Care

www.policecare.org.uk

Police Care UK is the charity for serving and veteran police officers and staff, volunteers, and their families. They are independent of the police service and are funded entirely by donations and fundraising - they receive no money from government or police forces for their work. They offer a range of support services including counselling (self-guided, counselling, CBT and EMDR), fund specialist equipment, offer

financial support, peer support programs, grants and educational bursaries for children of police staff and general advice and guidance. They have been providing services for 50 years and are a crucial support for retired staff. They fund various research studies (most recent led by Dr Jess Miller, Cambridge University, they also work with Professor Chris Brewin at UCL who sits on their steering board).

Mind

www.mind.org.uk

The Mind Blue Light Programme ran from 2015 to March 2019 (when funding ended). The programme focused on six key areas. These included 1. tackling stigma, 2. empowering staff to lead change, 3. training line managers, 4. making support accessible, 5. building resilience and 6. establishing networks. It was paid for by LIBOR funding administered by the UK Government. They worked with the University of Oxford on their resilience intervention and the Institute of Employment Studies evaluated their work with new recruits.

By the end of the program, 100+ emergency services and support organisations had signed the Blue Light Time to Change pledge, committing to practical action to tackle mental health stigma. Three thousand Blue Light Champions had registered (staff and volunteers who take positive action at work to raise awareness and challenge the way people think and act on mental health). Four hundred peer supporters were empowered through training to share their personal lived experiences to help colleagues and signpost to support. Nine thousand line managers, team leaders and pastoral staff were trained in managing mental health in the emergency services. Many thousands of calls were made

to their Blue Light Infoline, which provided emergency services staff, volunteers and their families with personalised information and support. There were a number of improvements (measured through surveys at the start and end of the program).

Over the duration of the program, Mind's surveys found increases in the proportion of ERs who said they were aware of the mental health support available to them (from 46% in 2015 to 65% in 2019), and the number of ERs who said their organisations encouraged them to talk about mental health (29% in 2015 to 64% in 2019). Sixty percent of respondents said they felt confident attitudes towards mental health at their organisation were changing for the better, and 56% were confident that mental health support was also improving. The highest rate of programme involvement among survey respondents was in the fire service (47%), and the lowest in the ambulance service (38%). Mind has developed the Blue Light Programme Blueprint Pack which is still available to all. It is a step-by-step guide that has detailed information for employers about how to set up and deliver mental health support in their service.

Beyond those large, national charities, the majority of signposting was to local organisations, suggesting that the support available to the different branches of the emergency services is likely to vary by geography.

“We’ve not got like a list of charities and organisations that we’re necessarily signposting everyone to. But there are lots of local organisations cropping up. So we do some work with them” (ID 24, RNLI)

“The rest tend to be more locally to the areas that people are in. Depending on what’s obviously around, whether that’s some local domestic abuse charities or alcohol dependency etc. But because we’re so geographically spread, they differ so much between area to area what’s available. So yeah it is trying to get that central tool of what we’re all using to make sure it’s consistent and have the right standard and quality that we’re referring people on to.” (ID 30, Ambulance)

The use of Employee Assistance Programs¹⁷ (EAPs) was also varied. All of the mountain rescue, RNLI and HM Coastguard interviewees mentioned having them, as did over half of the police and fire services, and about a third of ambulance representatives. Only three interviewees explicitly said they did not use EAPs; instead opting for in-house care, or more specialised support. Of those who did have an EAP, the amount of support they offered varied from branch to branch, both within and between services. Some effectively offered a phone line that acted as an additional signposting mechanism to other external support, while others offered a huge array of embedded wellbeing options, including labour intensive support, like face-to-face counselling.

The support for EAPs was mixed. Some interviewees found them really useful, making access to support quick and easy by offering a single point of contact as a gateway to a large array of wellbeing information and advice. And in some cases, offering employees direct routes into counselling, without the need for an additional, managerial referral – which was flagged as being particularly beneficial.

“(The EAP) gives us a 24-hour, seven day a week service with a telephone hotline that staff and their families can ring into to say I need help or support. And that can be in terms of accessing counselling, it can be in terms of accessing financial help, debt counselling etc... as part of the EAP provision people can get direct access through the provider without having to get any approval through work for six counselling sessions.” (ID 10, Police)

“I would say that the good thing about the EAP is that when staff want to use it, it’s there.” (ID 30, Fire)

Others felt the support was too generic, and not equipped to handle the full range of needs associated with the emergency services.

“Everybody’s pretty much sold off, well closed down, their occupational health units now and we outsource them. A lot of the provision that I’ve seen... they don’t necessarily do that suite of provision that’s needed for emergency services. I think that’s really hard for occupational health units or EAP programs... to deliver.” (ID 2, Fire)

“We’re reviewing (our EAP) at the moment because we don’t think it’s fit for purpose.” (ID 36, Fire)

7. Online support

A relatively recent form of external support that is gaining traction is that of eHealth: using online methods or technology to promote or support wellbeing.

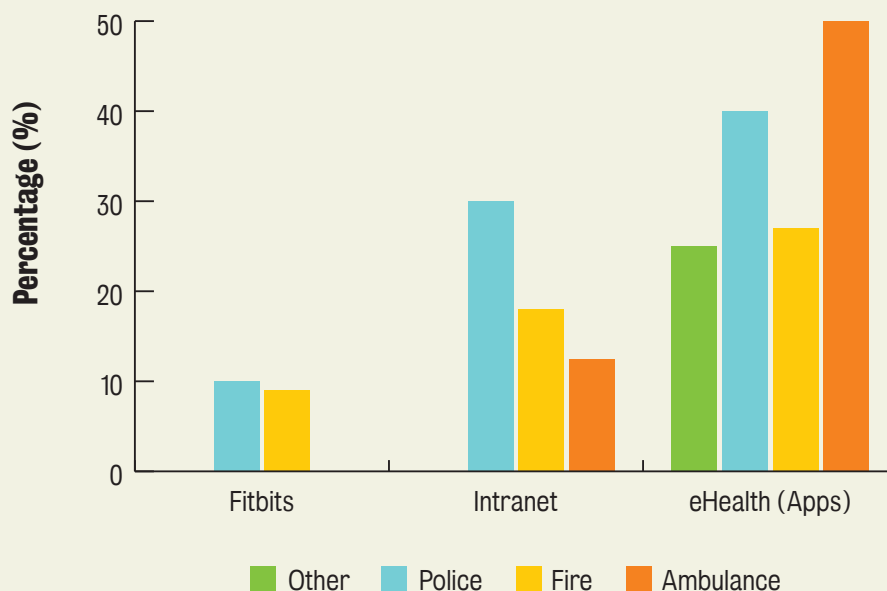
A couple of interviewees (from fire and police) mentioned giving Fitbits to their staff as a way of increasing general fitness levels. In one case this is being done in conjunction with a research project at Exeter University, to see whether they can promote more activity and better wellbeing.

The use of wellbeing pages on the intranet was also mentioned by a few participants. Given that this is a relatively easy form of signposting, psychoeducation and support, it is perhaps surprising that this was not mentioned more often. Results from our internet searches for ER wellbeing support suggest more services are likely to be using wellbeing pages than are represented here. For example, we found 44 examples (across the services) of dedicated intranet pages or online

“wellbeing hubs” (usually representing some form of platform that is a one-stop shop where they post or host information, resources and materials about wellbeing for staff to access).

Over the last decade, a number of eHealth programs have been developed for mental health conditions. These programs have good acceptance and attitudes towards their use are positive in the general population (Harrison et al., 2011). Additionally, outcome data suggest that eMental Health programs are cost-effective and clinically efficacious, with effect sizes similar to face-to-face therapy (Griffiths and Christensen, 2006, Barak et al., 2008, Cuijpers et al., 2009). Interviews showed that some of the services (particularly the ambulance and police) were capitalising on that, with some buying licences to common eHealth apps (e.g. Headspace, Calm, Be Mindful, Move More), and others using more context specific programs (e.g. Back-Up Buddy, MindFit Cop).

Figure 9 - The percentage of interviewees within each service using eHealth wellbeing techniques. (N: ambulance = 8; police = 10; fire = 11; other = 4)



8. Benevolent funds and grants

Many organisations reported offering benevolent funds or grants. This was mentioned by mountain rescue, police (30%), fire (27%), ambulance (12%). Within the police, these funds were usually police force specific, while the others mentioned having access to a more central fund. Benevolent funds can be used to provide financial support and practical help for employees (and sometimes those who have retired) and their families.

9. Staff training

Only the fire service (36%) and the police (50%) mentioned that they offered wellbeing training to managers. When this was spoken about, it was generally done so in positive terms, suggesting this type of training was essential in terms of supporting the wellbeing of their workforce.

“We’re just doing an online manager mental health training pilot. We know the line managers are absolutely key in how staff are treated and what impacts them or not and so we’re looking to develop something that we roll out to all staff across the force.” (ID 11, Police)

One police interviewee mentioned that they were embedding wellbeing training into their new recruits training package.

10. Trauma procedures

Post critical incident support was rarely spoken about by the ERs outside of the fire service.

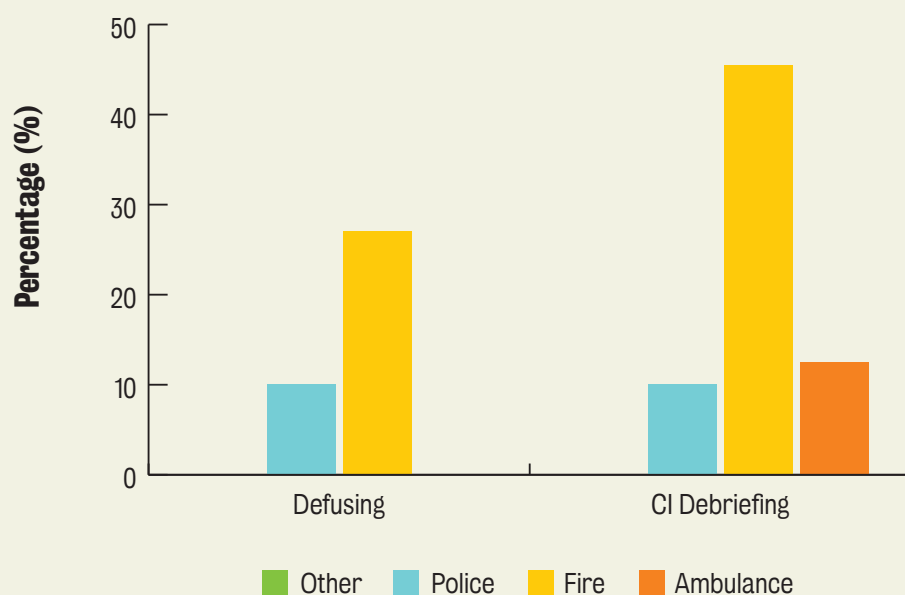
In contrast, almost half of the fire service participants mentioned using Critical Incident Debriefing (CID) techniques as a form of wellbeing support. Debriefing is a specific tool that aims to reduce the negative psychological and behavioural symptoms that can occur after exposure to trauma. Debriefing is meant to allow individuals to both reflect on and process the event and provides a mechanism for them to share and validate their feelings about the experience.

Defusing is another aspect of Critical Incident care which allows staff to ‘check in’ with other staff members and discuss and defuse their emotions and thoughts associated with the event. It’s not as formal as the CID but may escalate to a full debriefing or TRiM protocol if it is needed.

“we do training for sergeants around defusing – when I say defusing, I mean kind of checking that people are OK after an incident before they go home. So that kind of checking and closing bit.” (ID 11, Police)

“So any traumatic incident our crews go to post-incident straightaway they’ll be met back at their own station by a defusing officer, which is a senior officer. They’ll turn up at stations and ask how they are, and it’ll give them 20 minutes, half an hour after an incident to sit down and talk about how they are. Usually that’s enough. If it’s not, the incidents of a particularly serious nature, they’ll go and have a full debrief, usually about 24, 48 hours later. And the full debrief is there to try and help the group, keep the story together I guess and hopefully minimise the symptoms or potential symptoms of PTSD starting.” (ID 21, Fire)

Figure 10 - The percentage of interviewees within each service who mentioned using critical incident support. (N: ambulance = 8; police = 10; fire = 11; other = 4)



11. Environment

Wellbeing or contemplation rooms (i.e. a dedicated quiet and peaceful space for employees to ‘decompress’) were mentioned by 30% of police interviewees. These types of initiatives are informed by best practice standards set out by the WELL Building Standard, which provides recommendations in relation to air, water, light, nourishment, fitness, comfort and mind. One participant from the ambulance service mentioned the use of dogs at work to increase wellbeing. Interacting with dogs has been shown to enhance human wellbeing by reducing anxiety and pain (Barker et al., 2005), decreasing cortisol and heart rate, and promoting feelings of calm and positivity (Polheber and Matchock, 2014). However, there is limited evidence into the potential benefits of using dogs as a form of therapy, and nothing within an emergency service context.

KEY HIGHLIGHTS

Current wellbeing provision for ERs in the UK includes:

- ♦ Organisational frameworks/strategies (HR wellbeing strategy)
- ♦ Health promotion/psychoeducation (Awareness days and events; wellbeing campaigns)
- ♦ Prevention (Resilience courses)
- ♦ In-house support/treatment (In-house wellbeing team)
- ♦ Peer support/destigmatisation (MHFA, TRiM)
- ♦ External support (Signposting to charities)
- ♦ Online support (e-health/apps)
- ♦ Funding (Benevolent funds)
- ♦ Training (Manager/recruit wellbeing training)
- ♦ Trauma procedures (Critical incident debriefing)
- ♦ Environment (Wellbeing room)

4.2 Identifying better practice

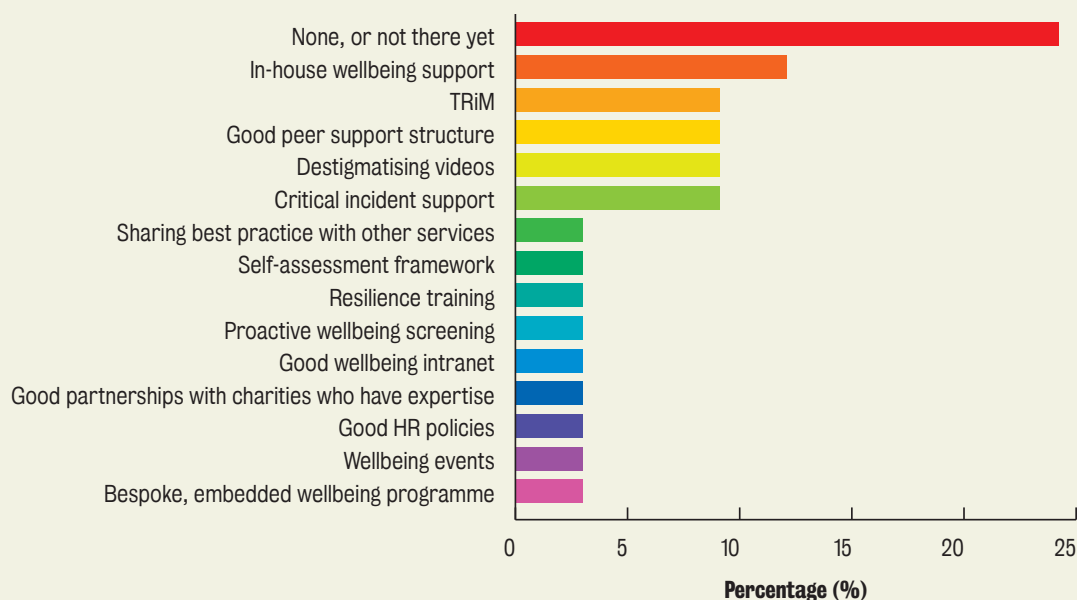
As part of the interviews, participants were asked to comment on any examples of best practice from either within their service or elsewhere (see Figure 11).

Responses to this question were mixed, and views varied in terms of what constituted best practice across (and within) the services. Indeed, over 20% of respondents did not provide an answer to the question, either saying that they could not think of anything that would be ‘gold standard’ or ‘best practice’ or saying they did not think their organisations were there yet in terms of better practice. However, several strategies were highlighted by multiple stakeholders as constituting best practice, indicating that the following may be areas that warrant particular

support: having in-house wellbeing support (whether a team, counsellors, mental health nurse or other wellbeing professionals) was most frequently mentioned, followed by TRiM, Critical Incident Support, peer support, and the use of destigmatising videos (these often constituted a peer or senior figures talking candidly about their own experience with mental health issues).

Stakeholders also flagged several other strategies as ‘best practice’, although given that these were only mentioned by single individuals, it is unclear whether these opinions are generalisable across the services. Sharing with other services was highlighted as a valuable way of informing better practice, as was having formal wellbeing self-assessment frameworks (like that provided by Oscar Kilo’s Blue Light Framework) – these

Figure 11 - The proportion of interviewees who highlighted different initiatives as best practice (N=33)



frameworks gave services the opportunity to highlight what they are doing well and identify areas for improvement.

Having good signposting to support was seen as important, for example using intranet sites to direct employees to help, as was having good partnerships with charity providers to support workers' needs.

Good HR policies were also flagged as integral to better practice wellbeing support. In particular, policies that allowed flexible or agile working, alongside considerate leave arrangements that allowed participants to look after their family or act as carers, were seen as being beneficial in terms of wellbeing.

Proactive wellbeing strategies (rather than simply reactive ones) were seen as important by two participants, whether through proactive psychological screening; through organisation-led wellbeing events designed to raise mental health awareness, or through resilience training to help to prevent the development or escalation of mental health issues. One proactive strategy that particularly stood out as better practice was that of one police force who developed a bespoke four-week wellbeing course that was available to all of their staff. The course included a number of evidence-based practices, embedded in a policing context, including: resilience building, wellbeing strategies, and CBT-based techniques. The police force had put nearly 2000 officers and staff through the program, and they designed refresher courses that could be taken after completion to continually 'top up' their knowledge.

Variation of provision

Overall, interviews indicated that provision varied enormously across the emergency services. While many mentioned having EAPs (or similar outsourced support) and a framework in place

to offer at least basic support to staff, the quality and quantity of wellbeing provision varied by both region and service. The graphs in the previous section illustrate how varied provision is between services and highlighted how rarely initiatives were talked about consistently both within and between organisations. For example, the percentage of interviewees who mentioned a specific initiative rarely rose above 40%. Whether mentions of initiatives or programmes truly represent what is actually in place, or whether they are more representative of the salience of the different support avenues that are used is unclear. Regardless, this emphasises the variation in provision across (and within) these organisations.

Furthermore, variations in interviewees' descriptions of what constituted best practice was suggestive of differing wellbeing priorities across the services, as well as indicating variations in the level of wellbeing support that is available. Particularly telling, was the finding that 20% of interviewees were unable to identify examples of better practice, indicating that more work still needs to be done in this domain.

Reflecting the variation seen in the data itself, several interviewees explicitly identified the differences in wellbeing support as an area of concern, noting that they were all at different stages of wellbeing support development across the board; varying both between and within services.

"I know the police are very well into health and wellbeing and particularly mental health and they've got a huge amount of resources through Police Care UK and Oscar Kilo. So, I feel that they're streets ahead of fire and ambulance." (ID 40, Ambulance)

"There's a disparate approach across the fire and rescue service, and we're all at different stages" (ID 27, Fire)

Why this might be the case is unclear, however many had the perception that services varied in terms of their 'buy in' to wellbeing initiatives, causing disparity in the offerings available:

"We're all doing so many different things... some services are using TRiM, some aren't. Some have got inhouse wellbeing practitioners, some don't... They have someone who works in HR or an operational manager who has been given wellbeing as a workstream and obviously it's just a token here your workstream of wellbeing, do what you can, no budget, no dedicated time for it." (ID 23, Ambulance)

Others highlighted the role geography plays in variation, for example, 'national' campaigns have not been wholly inclusive, and the UK's devolved nations have varied funding structures and mechanisms, which affects the availability of support and services. Indeed, there are concerns that provision is becoming increasingly polarised.

"That [provision] stops at the border. So when we move into England and Wales we have nothing available" (ID 12, Mountain Rescue)

"I can't speak for services south of the border, but it is quite difficult to pull those schemes together across the emergency services because we're funded differently and we fund internally differently as well, so it can be difficult." (ID 29, Ambulance)

Therefore, there is likely to be scope for an initiative which can help to bring together work that is being done in wellbeing, promote better practice initiatives, and support the development of more consistent service offerings across the board.

KEY HIGHLIGHTS

- ♦ Stakeholders identified a number of wellbeing activities as 'best practice', including in-house wellbeing support, trauma-related strategies and peer support models. However, some stakeholders were unable to identify any examples of 'best practice'.

4.3 An overview of online resources and websites that support the mental health and wellbeing of Emergency Responders: findings from internet searches

As well as using interviews to get a sense of the wellbeing initiatives that are currently available to ERs, internet searches were carried out to find out what the online wellbeing information and support landscape looked like. This internet search exercise was a useful example of what ERs may find online when searching for mental health and wellbeing information, as searching the internet is often the first port of call for those experiencing mental health issues (Morahan-Martin, 2004).

Google searches were carried out to identify available support services and programmes intended to support ERs. These may be government, employer, charity or privately led; either online or in person. Searches involved combining terms associated with

wellbeing or mental health, with terms referring to first responders, the emergency services (overall), and individual branches of the different services (more details of the method can be found in Appendix 2).

The searches revealed that a lot of information and initiatives are publicly available in terms of wellbeing support for ERs, with 239 individual websites (or “entries”) being identified that contained information about mental health and wellbeing support (although this is likely to be an underestimate as we recognise our search was not exhaustive). The following tables summarise the websites that were identified from the searches and gives an overview of the type of information and support they offered.

Individual services findings

Table 5 indicates the frequency of the type of information that was located for each entry (categories are not mutually exclusive, with several pages containing multiple types of support information). This gives an indication of the varied and complex nature of the online landscape of wellbeing support for ERs.

Table 5 - Frequency of type of information present on mental health and wellbeing related pages that were located as part of the desk review, broken down by service group.

Type of information	Other Emergency Services (n=7)	Ambulance (n=52)	Fire (n=56)	Police (n=90)	Not for profit & private (n=34)
1. Awareness Raising	4	13	22	43	15
2. Campaigning	1	-	4	8	2
3. Networking	-	3		10	1
4. Mentoring	-	1	5	11	1
5. Peer Support	-	3	6	17	5
6. Training	1	11	9	21	9
7. e-courses	-	-	-	2	1
8. Online resources (hubs)	1	20	9	24	9
9. Legislation	-	-	1	2	-
10. Policy	-	17	6	36	2
11. Blue Light Programme Linked	3	3	15	11	7
12. Signposting to Specialist Services (e.g. physiotherapy, counselling etc.)	-	9	22	49	10

Air, Coast and Mountain

Entries: 7

3 air ambulance, 2 mountain rescue, 1 coastguard, 1 ports authority.

Definition of Mental Health and Wellbeing:

0 of 7. None of the entries provided an explanation of what is meant by mental health and wellbeing.

Monitoring and Uptake: 1 of 7. Only one service contained information relating to service use and impact. The Wellbeing Programme noted below includes a monthly survey to all staff, which acts as a feedback mechanism on the mental health services they provide. They do not state how they use this information or act on it to review/revise strategy.

Overview: There was a noticeable lack of information for these services online. This may be a product of the scale and available resources available for these services relative to the fire service, ambulance and police, but information on wellbeing support was only directly available for one air ambulance service. However, a couple of sources indicated that mountain rescue and air ambulance were part of wider initiatives that could be accessed through other (larger), local emergency services. It may be that there is more wellbeing provision and support available than is illustrated here, just that the information is not made publicly available.

Observations and Initiatives of Note:

- ♦ Information on four of the services' work on mental health was directly linked to BLWP – establishing Champions and encouraging staff to engage with Mind's resources.
- ♦ Most of the information for this group was found through informal sources such as online news articles and blogs. As such, they tended to focus on awareness raising and signposting, rather than providing direct support.
- ♦ Association of Air Ambulances had an extensive section on mental health in their online magazine in June 2018 and included a series of destigmatising case studies of staff experiences of dealing with mental health issues.
- ♦ Hampshire and Isle of Wight Air Ambulance launched a Wellbeing Programme in early 2019, with their wellbeing website at the heart of the program. Designed to give the Critical Care Teams (including paramedics, doctors, pilots and dispatch assistants) the tools to monitor their own mental health and check in with colleagues.



Ambulance

Entries: 52

34 national health-related bodies (NHS England, St John's Ambulance, NHS Employers) and 18 ambulance Trusts.

Definition of Mental Health and Wellbeing:

None of the 52 entries made an attempt to explain or define mental health and wellbeing explicitly. Although, a number of initiatives did try to define specific wellbeing issues, such as stress.

Monitoring and Uptake: Of the 52 entries, only eight had information that could be related to assessing impact and change. Of the eight, details were sparse and were concerned more with quantifying the initiatives (how many workshops run, how many staff have accessed HR webpages) than outcomes. For example, Brighton and Sussex NHS Trusts' "It's OK to Ask" claimed to have helped over 500 staff and the London Ambulance Trust has held 61 anti-bullying workshops for over 750 staff.

Overview: Of all the services reviewed, ambulance trusts had the most information publicly available on their websites. Four had details of what services and support they offer on dedicated mental health and wellbeing sections of their sites, while a further two had information elsewhere on their site. As with the police forces, the majority of information was obtained through annual reporting type documents (online PDFs). The detail and information available on 'Trusts' overarching strategy and approaches to mental health and wellbeing was by far the most accessible and comprehensive of any of the services. However, a lot of the information lacked specific detail. For example, OH services and support were

listed as available, but it was hard to find descriptions of what was offered (beyond 'counselling' or 'financial assistance') and how to access them.

National bodies and charities – beyond the ambulance trusts themselves, supportive organisations provided most of the resources available. Of the 34 entries, 85% provided online downloadable guides or materials for staff to use. Much of the narrative behind this work was about 'creating the right workplace environment to support positive/good mental health'. There were good examples of cross-organisational work in this area, as most of the initiatives mentioned being produced for, or in partnership with others. For example, NHS Employers collates resources from across the health sector, feeding into the NHS Wellbeing Framework; and College of Paramedics 'mental health and wellbeing steering group' having Health Education England and ambulance trust membership.

From the information available it is clear that the mental health and wellbeing of staff is a serious priority for ambulance trusts. Only Scotland was mentioned as needing a strategy and there was no information available on Northern Ireland Ambulance Trust. Furthermore, trauma support, specifically TRiM, was mentioned in 14 of the 18 entries signifying that this is a priority for NHS Trusts.

Continued overleaf

Observations and Initiatives of Note:

- ♦ NHS Employers appeared to be the most active in the area of mental health and wellbeing of any organisation that was reviewed, aside from Mind and the BLWP. There were 17 individual entries detailing initiatives and resources they had produced, commissioned or partnered on, and it was clear they are trying to act as a central nexus for pulling together information and materials for the sector and showcasing best practice. Although the majority of resources were aimed more generally at NHS organisations and staff, several resources were directly related to ambulance staff. It is worth noting, however, that there were no specific resources for ambulance staff mentioned in the fields of trauma support.
- ♦ College of Paramedics took a proactive approach, with online e-learning mental health training, and the formation of a mental health and wellbeing steering group that aims to develop a more comprehensive approach to support. However, with the exception of a Peer Support Program, there was little detail available about the support they are looking to develop.
- ♦ St John's Ambulance were found to offer Mental Health First Aid courses, in partnership with MHFA England. They have additional open access resources 'beyond the training', including a mental health quiz, workplace policy guidance and mental health risk assessment.
- ♦ North-West Ambulance Service have an 'Invest in Yourself' campaign to promote better staff self-care, accompanied by a series of podcasts, blogs and support page where staff can share good news stories and personal experiences.
- ♦ Scottish Paramedic Service was described as in mental health crisis (Parliamentary debate Mar 2019) and have made a pledge to develop a wellbeing strategy to tackle the situation.
- ♦ Related to the above, the Scottish Government has pledged £138,000 to extend Lifelines Scotland to all Scottish Blue Light Services. This will involve developing a dedicated website with wellbeing resources and e-learning modules.
- ♦ The NHS England – Wellbeing Framework: a roadmap to good mental health was developed in partnership with 12 Trusts. However, no references to this resource were found on the Trust websites.
- ♦ The Association of Ambulance Chiefs have produced 'Employee Mental Health Strategy Guidance', designed to support trusts in producing their own organisational-specific employee mental health strategies, with a focus on suicide prevention.
- ♦ The Ambulance Staff Charity (TASC) offers a range of independent services that appeared in a large number of searches. Ambulance trusts signpost to TASC frequently

Fire

Entries: 56

Eight national bodies and charities (National Fire Chiefs Council, Firefighters Charity, Fire Brigades Union), 48 regional fire services.

Definition of Mental Health and Wellbeing:

Two sites provide broad definitions.

Monitoring and Uptake: Buckinghamshire reported collecting monthly feedback about support service usage, Hampshire was found to monitor website views (claiming over 100,000), eight had data from Her Majesty's Inspectorate of Constabulary and Fire and Rescue Services (HMICFRS) Efficiency and Effectiveness reports 2018/19.

Overview: Most of the detail about support offerings and resources came from HMICFRS annual reports, which added a wellbeing section in 2018/19 to help which evaluate service support strategies and wellbeing provision. Details about 16 of the services' support initiatives came directly from these reports alone, so were a key source of information on individual fire services. However, only the 45 services in England submitted reports, and fewer than half were available to download. Furthermore, the level of detail included in each report was varied, with a several reports omitting the wellbeing section (It is unclear whether service information was omitted from these reports or did not exist).

Only two services were found to have information on dedicated webpages: Kent had a section on their mental health and wellbeing strategy in their 'what we do'

section and Merseyside listed the support and services they offer under 'staff benefits'. Some information came through articles on service 'news pages' such as the West Midlands Fire Service but, generally, fire services did not publicly advertise their wellbeing support and services on their sites. Social media (Facebook and Twitter) was a source of some information for seven services, but postings were quite broad, relating to awareness raising around 'World Mental Health Day' and the importance of good mental health.

This was the hardest service to find information on in terms of what OH and HR offer staff.

In contrast to this, almost all of the fire service websites contained at least some information relating to the mental health and wellbeing of the communities they serve. This often took the form of outreach programmes - awareness raising, open fire station days, community and school events. For example, Avon and Cornwall have 'good mental health in the community' days, East Sussex have home safety visits, which include assessments of mental health (as risks of alcohol and drug misuse lead to increased fire risk). Staffordshire do something similar in 'Safe and Sound' home assessments

Continued overleaf

Observations and Initiatives of Note:

- ♦ Much of the information on fire services related directly and only to the BLWP and signing the Time to Change Pledge (22 of the 48 services). Another observation was that fire services appeared to have signed up much later than other services – many from 2018 onward when the programme had been around for a while.
- ♦ Google searches for fire services revealed a number of Freedom of Information requests to individual services relating to state of mental health in fire personnel. These requests were more visible than searches for other services (24 logged), which is indicative of a general lack of publicly available information about wellbeing in this service.
- ♦ National Fire Chiefs Council was found to have a ‘Resource and Sharing’ site for mental health but, at the time of this review, this only contained details of the BLWP.
- ♦ The Fire Fighters Charity offers a package of psychological therapies and report 5,000 firefighters a year access this service, delivered by a team of psychologists. They also have a promotional video that has firefighters sharing their stories and experiences, in an attempt to destigmatise mental health issues and raise awareness among fire personnel and the wider public.
- ♦ The Fire Brigade Union has a guide to spotting poor mental health and actions (signposting) for their members. They also noted that they are looking to survey mental health of members and introduce mentoring.
- ♦ Hampshire Fire Service – ‘Firing Off Questions’ is an online video of firefighters talking about their experiences and stories of struggling with mental health. The five-minute film showed people from all parts of the service (from frontline firefighters and office personnel up to Deputy Chief Fire Officer) having honest conversations about their experiences and reflections. Launched during Mental Health Week in 2018, this resource has received over 100,000 views.
- ♦ Buckinghamshire and Isle of Wight Fire Service were the only two services with publicly available wellbeing strategy documents that detailed what OH and HR offer staff

Police

Entries: 90

72 police constabulary (including British Transport Police, Civil Nuclear Constabulary, Ministry of Defence Police) and 18 force-related bodies (Ministry of Defence, College of Policing, Police Mutual, Police Federation, Police Rehabilitation Centres).

Definition of Mental Health and Wellbeing:

As with the other services, the terms mental health, wellbeing and resilience were widely used by police forces and police-related organisations, but few made an active attempt to define the terms in a meaningful way. Eight of 90 entries had some form of description against the terms/phrases they were using. However, overall there was a tendency to not define terms, but instead list 'symptoms' of conditions such as anxiety, stress, PTSD.

Monitoring and Uptake: 20 of 90 entries.

Information on assessment and impact was sparse, as with other services. Individual forces had little, or no data available (15/72). When information was available, the majority only made reference to having some form of internal review/survey, but this was not expanded on. Notable exceptions were Derbyshire Constabulary that had some quantitative data against the work of their Force Wellbeing Strategy (including a number of mindfulness champions, BL Champions, Managers trained), and Devon and Cornwall, who held a 'Men's Health Conference' and had event attendance data. None of this information, however, gives any indication of how monitoring and evaluation fits into revisions of mental health and wellbeing strategies, or has any indication of the impact of these support strategies in terms of mental health and wellbeing outcomes. The only impact statistics identified came from Merseyside Constabulary who used a questionnaire with their BL champions. The results showed increases in MH awareness,

ability to manage change, motivation and confidence to support others as a result of taking part, but (again) impact on mental health outcomes were not considered.

Similarly, there was little information from the police-related organisations. However, the Police Treatment Centres cited the number of officers they annually help return to work through their rehabilitation programme (2,500pa). In addition, the Defence Medical Welfare Services (who provide a confidential and impartial listening ear, practical assistance, home visits, liaising with the constabulary, and emotional support) indicated that they measure impact using an externally validated tool (Warwick-Edinburgh Mental Wellbeing Scale; Tennant et al. (2007)), and stated they have evidence that their interventions have improved the wellbeing of those involved.

Overview: The searches revealed a lot more information on the activities of police forces, relative to any of the other services. In addition, the consistency of information was far more apparent. There were a lot of online reports and policy briefs published by the forces themselves that revealed a greater level of detail around the overarching strategy and approach of a force, compared to ambulance or the fire service. It appeared that a higher proportion of police forces have wellbeing programs, strategies, policies and frameworks compared to other services. This level of detail also carried through to the specifics of the support offered.

Continued overleaf

There was a much clearer demarcation with forces around what OH offer, and what is outsourced. For example, there appeared to be standard services such as in-house wellbeing platforms for awareness raising, training for managers, support networks and champions or mentors provided internally, but services such as counselling and physiotherapy were usually referred externally or outsourced (such as to Police Treatment Centres). Although, there was some variation in the areas targeted for support. Finally, while the BLWP and pledge appeared to have spurred a wave of recent innovative ways of thinking and delivering mental health support, it seems that OH teams have had some wellbeing support in place for some time

Observations and Initiatives of Note:

- ♦ The Home Office Policing Front-Line Review was launched in July 2019 with the largest systemic, evidence-based, analysis of wellbeing in the service. There is currently nothing comparable to this in the other services.
- ♦ Oscar Kilo had little presence online – other than the site itself providing good practice case studies through the ‘awards’ pages. Forces did not appear to be directly signposting to it in the same way they did with the BLWP. This is possibly due to the organisational focus of much of the Oscar Kilo resources, however given that tools for individuals are available on this site, more could be done in terms of increasing its visibility.
- ♦ College of Policing are proactive on issues of mental health and have produced a series of educational resources, downloadable guides (on trauma, risk management) as well as an e-learning course on mental health and useful signposting.
- ♦ Police Federation have a 9-point stress plan that includes a series of resources such as a booklet designed to help forces develop policies for supporting staff to reduce stress.
- ♦ Both Devon and Cornwall and Derbyshire offer initiatives and support for men’s health and fitness.
- ♦ Use of in-house dedicated wellbeing webpages and platforms were common. For example, Cheshire’s Wellbeing Zone on intranet pages and Greater Manchester’s wellbeing hub.
- ♦ There were several examples of forces weaving their mental health and wellbeing strategies into creatively packaged campaigns - Feel Well, Live Well (Essex), Youd4U (Gloucestershire).
- ♦ Back-Up Buddy was referenced as a popular form of support and self-monitoring that can complement existing services and support by a number of forces.
- ♦ Lincolnshire Police introduced 5 ‘Fitness Mentors’ who are volunteer officers that are working towards personal instructor qualifications.
- ♦ Devon and Cornwall were found to have a ‘Surfwell’ group – a social group to bring staff, friends and family together.
- ♦ Wellbeing Vans – four constabularies cited using a model of mobile mental health awareness raising sessions going from station to station. Something that is replicable within the fire service.
- ♦ Nottinghamshire allocated a ‘Media and Comms’ officer to wellbeing to ensure consistency of messages and information provided to employees

Not-for-Profit and Private

Entries: 34

24 charities, 5 public bodies (government and local authority), 3 private companies providing specialist training and services, 2 others.

Definition of Mental Health and Wellbeing:

0 of 34. None of the organisations or initiatives provided a clear statement about what mental health and wellbeing is. However, some provided explanations for specific conditions or issues such as stress and stress related absence; and Lifelines Scotland provided a definition of resilience – ‘Resilience is our ability to recover from the stress we encounter. Whether we can bounce back depends on the stresses we face and the resources we have to help us cope’.

Monitoring and Uptake: 30 had no information on any evaluation or impact. Four had basic usage data about the amount of people who accessed their services and support. The Police Dependents Trust reported helping over 7,000 people with targeted support and financial assistance since they began in the 1960s.

Observations and Initiatives of Note:

- ♦ Not-for-Profits either focused on awareness raising, information and signposting to other forms of support, or they directly offering services themselves (e.g. training, assistance programmes or private rehabilitation clinics).
- ♦ PTSD support was a priority for seven organisations, and it was referenced by a further five. PTSD999 reported they are the only organisation in the UK offering PTSD Trauma Related Therapy and training to ERs.
- ♦ Generally, Not-for Profit and Private support was aimed at emergency service staff – irrespective of what service they were from.

There were, however, five charities who exclusively work with police forces. Although there are ambulance charities and the Firefighters Charity, these were often linked to the wider sector and/or more formally connected to the NHS.

- ♦ There was a notable link between Armed Forces and ERs. A number of the charities were started by ex-members of the Armed Forces and services and support have been extended to emergency services. This is likely due to the affinity with ERs and the potential trauma they face on a daily basis.
- ♦ Of the three private businesses, two offered training and the third offered specialist trauma therapy.
- ♦ Several charities focused on families of ERs, rather than staff. For example, Bobby on a Bike and Winston’s Wish provide bereavement support.
- ♦ Six regional Mind initiatives and Blue Light partnerships were also identified. This is where local offices were doing work beyond the basic ‘pledge’ initiative and signposting to the BLWP.
- ♦ The Back-Up Buddy app was advertised and advocated by five police forces, appearing on their lists of support and services.
- ♦ Business in the Community (in partnership with Public Health England) created an online interconnected suite of toolkits to help organisations support the mental and

Continued overleaf

physical health of its employees (topics include suicide prevention, musculoskeletal health in the workplace, domestic abuse, crisis management, sleep and recovery). While not targeted to ERs exclusively, a number of Trusts and Constabularies were signposting to these resources but did not expand on what they are using within the suite of toolkits.

- ♦ The services were largely concerned with providing support for wellbeing issues, after they are identified. An exception was the British Red Cross' 'Resilient Responders' which provides preventative support, trying to reduce burnout in ERs.
- ♦ First Light Trust Cafes – a growing network of community hubs for Blue Light service veterans to gather, talk and gain support.

- ♦ EF Training – Compassion Fatigue Training, developed after recognising that while most ERs go into their profession because they care about protecting and helping other people, the day-to-day trauma can lead to compassion fatigue. This training tries to prevent this, as it can lead to burnout and exit from service. This was not mentioned in any other mental health material for ERs.

- ♦ UNISON Mental Health Matters provided psychoeducation and information about mental health and wellbeing. UNISON President Eric Roberts produced this booklet as a result of his own experience in the ambulance service, and his appreciation of the BLWP



Overview of online training and e-learning resources identified by internet searches

The following table details the mental health and wellbeing online training and e-learning resources identified by the desk review internet searches.

NHS Employers – Leading the Way

Online suite of resources, guides and materials for good practice drawn from across a range of Trusts and affiliated organisations.
<https://www.nhsconfed.org/sitecore/content/nhs-employers/home/retention-and-staff-experience/health-and-wellbeing/leading-the-way>

College of Paramedics

e-learning platform course – Module on Mental Health for Paramedics. Divided into 12 bitesize sessions. Login section for more detail.
<https://www.collegeofparamedics.co.uk/news/elearning-for-paramedics-mental-health>

Lifelines Scotland

The Staying Well Road Trip – a Guide to Resilience for Responders in Scotland. Aimed at volunteers. Free access online resilience course
<http://lifelinesscotland.org/courses.html>

St John's Ambulance

Online resources beyond MHFA training. Includes blogs, posters, quizzes, policy and risk assessment guides. <https://www.sja.org.uk/>

Police Mutual Wellbeing Kit

An online resource with its own website. Designed to cater for different learning styles - from those who like to read full articles to those who prefer practical aids. The toolkit provides a 'wellbeing wheel' which contains six sections with themed wellbeing information and tools/exercises. They include well-managed change, resources and communication, work relationships, balanced workload, in control and sense of purpose.
<http://toolkit.policemutual.co.uk/>

Kent & Sussex Police – Feel Well, Live Well

Programme to equip managers and supervisors with the skills needed to support their teams and encourage staff to be more open about their mental health. It includes manager and supervisor mental health and trauma awareness training, toolkit to promote resilience, and short 'taster' sessions on mindfulness, cognitive behavioural therapy and personal coping strategies.
Link unavailable publicly.

Hertfordshire Fire Service

OH offers wellbeing support via e-learning, including the Mind mental health awareness training, and the employee wellbeing support package 'care-well'.
Link unavailable.

NHS Greater Glasgow and Clyde through National Education for Scotland – Psychological First Aid Course

1hr E-module designed for people who may be involved in the response to an emergency. The course is designed to help users understand and deliver 7 key components of effective Psychological First Aid, across an array of different setting and populations.
<https://www.nhsggc.org.uk/working-with-us/hr-connect/learning-education-and-training/learning-education-catalogue/i-q/psychological-first-aid/>

Mindfit Cop

This is an eight-week online mindfulness course. Each week, users work through a lesson, which takes around 30 minutes to complete. Users complete home practice tasks, which take between 10 and 20 minutes. Each lesson builds upon the previous one and, covers cognitive reframing techniques, as well as mindfulness.
<https://oscarkilo.org.uk/mindfit-cop/>

4.4 Key observations across the internet searches

Disparity in publicly available data across different services

While wellbeing support information was available for all of the 18 ambulance trusts, this data was missing for two of the 43 police forces and eight of the 48 fire services. The amount of information that was available and the sources this information came from varied considerably both within and between services. In general, organisations did not host detailed information on what they offer to staff on their websites. In the few instances where they did, this tended to be covered in ‘benefits to staff’ pages or was found in obsolete job descriptions. Most information (approximately 50%) about support and services came from online reports that were a mixture of annual reviews, policy statements and strategy documents; about 30% came from news articles reporting on various activities and initiatives being launched (a significant number related to BLWP Pledges).

Broadly speaking, there was less information available about fire services compared to police and ambulance, with the majority coming from the HMICFRS Efficiency reports (2018/19). Air, Coastguard and mountain rescue services have hardly any wellbeing presence and what is online tends to be blogs and news articles. It may well be that organisations host mental health and wellbeing information internally on their intranet pages, rather than hosting this information publicly. Many forces (particularly ambulance and fire) appeared to be active on social media, advertising and promoting good mental health and wellbeing during key events such as World Mental Health Day. This indicates that many services may be more active than their websites would suggest, and most likely have some formal support in place for employees. Indeed, while many services alluded to offering wellbeing support, they did not publicly post details about what they entail. It is therefore unclear how easy it might be for ERs (or their families) to access that

information. In contrast, the richest information on mental health and wellbeing initiatives came from organisations who effectively have online ‘store fronts’, advertising what they offer to potential users (e.g. support organisations, charities, representative bodies etc).

Absence of definitions, monitoring and evaluation

Out of 239 entries, only 10 attempted to define mental health and wellbeing explicitly. Whilst the term ‘resilience’ appeared regularly in high-level strategic narratives, it was rarely defined. The terms were used broadly and, on reading available information, clearly encapsulated different understandings of mental health related problems (from work stress to financial troubles, domestic abuse to PTSD and trauma). There were more attempts to define particular issues, including stress and anxiety, with a tendency to signpost to others’ work as a way of doing this (most commonly BLWP, but also key health-sector organisations such as the Health & Safety Executive and Health Education England).

Of the total 239 entries, only 41 contained information about activities or data that could be considered an attempt to assess or review the effectiveness or impact of support/service provision. Of these entries, the majority only featured basic quantitative usage data (for example, the number of people that attend training, or number of staff that access wellbeing pages); wellbeing outcome information was generally absent. Despite this, many service reports noted that they commit to regular reviews of their support and OH services, consulting and surveying staff, but this was often mentioned in the strategy overview with no information on what surveys revealed. Although there was a noticeable lack of emergency services making data on any evaluative work public, where information was available it tended to come from statutory review bodies. HMICFRS reports were a good source of data, however wellbeing provision has only recently been added to these reports. As such their online reports were not always consistent and often only provided

overviews of ratings with broad comments, for example, 'staff were generally happy with what OH offer but find access to the information difficult'. At present, it is difficult to know how meaningful these evaluations are in real terms.

Support approaches

Annual reviews and performance reports amongst ambulance trusts and police forces situated mental health and wellbeing of staff as an issue impacting on delivery – amount of days lost to sickness and absence was the most common evidence used to highlight why tackling mental health and wellbeing is important. This approach focuses on how mental health impacts the effectiveness and efficiency of the organisation, rather than how it impacts upon the individual. Instead of taking organisational responsibility for the wellbeing of their staff, pages often explicitly stressed that it is the responsibility of the employee to recognise their own mental health issues and seek help when needed.

Across the sites identified, there was a noticeable difference in the approaches taken to mental health and wellbeing across branches of service. For example, there was a strong emphasis on creating the right workplace environment to improve mental health within the health sector (i.e. ambulance service) that did not translate in the same way to the other emergency services. The guides and resources from the NHS (such as the NHS Wellbeing Framework and NHS Employers Eight elements of workplace wellbeing) emphasised good mental health through a positive work environment. As a result, supportive information and resources focused on reducing absence, training managers to spot signs of mental health issues, domestic violence, stress and anxiety, and problems with workload. In contrast, the fire service and police pages identified in the review did not couch mental health and wellbeing in this way. Instead, they tended to signpost to Mental Health First Aid, and the BLWP solutions to wellbeing, focusing on destigmatisation and signposting.

Across the board, the majority of wellbeing initiatives and resources offered were concerned with supporting mental health or life issues

reactively (e.g. financial debt, life issues, trauma). However, there was some evidence of more proactive, preventative strategies emerging. For example, resilience training appeared in a number of Emergency Service support packages, and as part of a recently developed (Jan 2019) LIBOR funded Red Cross 'Resilient Responders Program' program. Additionally, some of the awareness raising initiatives that prompted people to be more sensitive to their mental health is a step in the preventative direction, such as the NHS Employers emotional state indicators.

Importance of trauma support, TRiM and PTSD

Many of the sites identified referred directly to the need to support ERs in dealing with the trauma they may experience as part of their job. Our search identified 21 individual services that offered some form of special trauma support, while 12 ambulance trusts and 31 constabularies offered similar support, there was however a general lack of information in relation to fire services on this issue. In terms of PTSD-specific support, services seem to be disproportionately offered by charities, rather than by the ER organisations themselves (e.g. SAPPER Support, PTSD999, Safe Horizon & First Light Trust). For example, PTSD support was only offered by the Ambulance Staff Charity as part of their counselling service (and not by the ambulance trusts), and by only five police forces, in this case referenced in direct relation to TRiM.

Reliance on signposting

Where emergency services provided information on mental health and wellbeing, it was generally accompanied by signposting to lists of other organisations and initiatives offering support services and resources. Many of the police forces advertised the services of the Police Care and Police Treatment Centres, while ambulance trusts were connected to the Ambulance Staff Charity. By far the most referenced sources of support across organisations were Mind and their BLWP. Signposting varied within the sectors and services considerably, so it is unclear how much work or research goes into advertising available support

pathways and organisations. Much support was local to the individual branches of the services, further highlighting inconsistencies in support and suggesting that links to support may often be opportunistic and geographically motivated.

In-house platforms

A number of services appeared to offer dedicated spaces on their intranet pages or reference “wellbeing hubs”. In total, there were 44 entries across the individual services (representing about 30%) mentioning some form of platform where they post or host wellbeing information, resources and materials for staff to access. Level of detail about what is offered varied considerably and there was no way to verify what was hosted, as the hubs were only accessible by service employees.

Specific groups within the emergency services

There was recognition across the emergency services that different groups can face particular mental health challenges (for example, women in a masculine environment, discrimination toward ethnic minorities and LGBTQ+). However, this awareness does not always translate into specific support and services, based on available online evidence. Only Lancaster Constabulary appeared to offer a support network, specifically focusing on disabled, ethnic minority, women and LGBTQ+ staff. The review also showed that support for retirees was largely overlooked by the services themselves. Instead, support for retired ERs was predominantly offered by the third sector (e.g. Police Mutual, Lifelines in Scotland, Ambulance Staff Charity, Police Rehabilitation Centres all offer charitable support for retirees), and this appears to be the main avenue of support for this group.

Mind's Blue Light Wellbeing Programme (BLWP)

It was clear from the sites found as part of the internet review that the BLWP has been, and continues to be, a focal point on mental health for many organisations. For example, information was available to suggest that at least 70-75% of the individual ambulance, fire and police

services have made the Mind “Time to Change” pledge, and the BLWP pages and resources are widely signposted. But while it seems the BLWP may have been the impetus for many services to make stronger, and more public, commitments to improving mental health, most emergency services were offering some form of support through OH prior to this. In addition, while BLWP has had a clear impact, many services (Constabularies and Trusts, in particular) are innovating – adapting various aspects of the BLWP to fit their own organisation and trialling their own initiatives and support methods.

Lack of large-scale programmes of support

BLWP seems to have a strong legacy of impact and there is a clear lack of any large-scale programme to rival it. Even within the individual services, there are few ‘sector wide’ initiatives; instead, support tends to be offered more locally by individual Trusts, Constabularies etc. Those organisations that target services more broadly tend to be bodies with a focus on welfare of staff, including NHS employers, Unions and training bodies such as the Police College.

A notable exception is Oscar Kilo. However, there were few references to Oscar Kilo from police force websites. This is unusual, given that it is the home of the National Police Wellbeing Service, and that it aims to provide police forces (and other emergency services) with evidence-based resources and guidance for developing and delivering support for emergency services staff. It is difficult to gauge the extent to which services actively engage with Oscar Kilo. However, the lack of reference to it on public-facing sites may be due to the fact that their resources tend to be aimed at supporting organisations to support their staff (for example, through allowing them to benchmark their wellbeing provision against set standards), rather than supporting individuals in need of support. However, an increasing amount of resources are being made available for individuals, such as the Mindfit Cop online mindfulness program hosted on the site, which has recently undergone an

evaluation that demonstrates its effectiveness (Fitzhugh et al., 2019). Thus, more could be done in terms of increasing Oscar Kilo's visibility to ERs.

Lack of transparency/visibility

What became apparent from the internet review is that, although there is widespread commitment to improving mental health, evidenced by the almost unanimous signing up of emergency services to the BLWP, this has not translated into a culture of publicly making information available on the activities that services initiating to improve the mental health of their staff, and the support services they provide. Conversely, there was a large amount of information about how the various services do outreach and work around mental health awareness raising within their local communities (particularly amongst fire services). However, from the perspective of a potential user looking for mental health and wellbeing support, if relying solely on Google to locate information about support services that are available to them, the landscape is incredibly varied and difficult to navigate.

Summary

Overall, the internet searches revealed considerable variation in provision offered to ERs both within and across services. The overall online landscape was difficult to navigate from a user's perspective. The publicly available websites lacked clear definitions of key terms involved in mental health and wellbeing, and its support. In addition, it was often difficult to find information about provision, with the richest information coming from organisations who have online 'store fronts', advertising what they offer to potential users. As highlighted by the interviews, services rely heavily on charities or external bodies to support wellbeing (particularly for supporting retirees, and for offering specialist support for specific wellbeing concerns, such as PTSD), however the resources or organisations signposted appeared to vary within the sectors and services considerably (often as a function of geography). Since the BLWP's funding ended, there is a gap in large-scale national provision.

KEY HIGHLIGHTS

- ♦ The online landscape of information/support for ER mental health and wellbeing was vast and difficult to navigate in terms of volume, relevance of information, eligibility and access to practical support.
- ♦ Overall wellbeing provision varied widely by both region and service; however, a large amount of work was being carried out in this area.
- ♦ The wellbeing information posted on service websites was incredibly limited, and service run social media posts could do more to signpost support. In contrast, not-for-profit sites, particularly charities, contained the most in-depth information on the wellbeing support they offer directly on their sites.
- ♦ The responsibility and accountability for identifying mental health issues and seeking/receiving help usually falls to the individuals themselves. This is problematic, as it can be difficult for individuals to recognise problems as they arise.
- ♦ Since the Mind Blue Light Wellbeing Programme ended in 2019, there has been a substantial gap in large-scale national wellbeing provision for ERs.
- ♦ There is little evidence of service monitoring and evaluation.

RECOMMENDATION

- ♦ Facilitate better access to mental health and wellbeing support through the creation of a 'Universal Gateway' website (analogous to the Veterans' Gateway; or <http://www.cipsrt-icrtsp.ca/>) or a tool that will aid ERs to navigate support options (including charitable provision), increase visibility of services, enable routes into care pathways and provide online self-assessment to increase recognition of potential mental health and wellbeing problems.

4.5 What does research tell us about the effectiveness of wellbeing initiatives for UK based ERs?

The landscape review identified a large amount of wellbeing-related activity and support and has highlighted the considerable variation in supportive resources available across the services. However, it is unclear what the evidence for these initiatives might be (whether in terms of acceptability, utility or effectiveness) for ERs in the UK. Our systematic review aimed to identify studies that answered this question. However, the findings revealed that the implementation of wellbeing provision is outpacing evaluation research. Specifically, the systematic review found very few intervention studies with regards to improving mental health, wellbeing, resilience and help-seeking, and the majority of wellbeing support avenues (as described above) had no published research associated with them. Those that did, are covered below.

Prevention: resilience training

Hesketh et al. (2019) investigated resiliency training and its effect on attitudes and perceptions that cause stress in the workplace. This study found some evidence that the training may help with improving individual's perceptions of control over their work, however its impact on mental health outcomes was not explored.

Results of a randomised controlled trial (RCT) exploring the effect of Mind's six-session group-based resilience intervention showed it had no effect on resilience or rates of mental ill health (Wild, 2016). However, this intervention has now been improved to specifically target known predictors of mental ill health, and initial results look more promising (personal communication,

Wild). Furthermore, there is ongoing work investigating the utility and effectiveness of resilience training in paramedics at the University of Oxford and the University of Bradford, so it is likely that this evidence base will increase.

Outside of an ER context, the results of research on resilience training has been mixed. For example, a recent RCT of a resilience programme within UK military recruits found that a resilience programme had no impact on their health and wellbeing compared to usual recruit training (Jones et al., 2019). Thus, organisations should be wary of investing money in programmes that have not been evaluated for their impact. However there are indications of promise in this area (see Robertson et al. (2015) for a review). It is difficult to draw conclusions about the success of resilience training from the available studies, as there is considerable variation in how resilience is defined and conceptualised across papers, as well as stark differences in resilience training design, implementation, and assessment.

Mental Health First Aid

The systematic review identified one study that assessed the impact of training to improve mental health attitudes in a fire service. It found that two programmes, 'Looking After Wellbeing at Work' and 'Mental Health First Aid', were significantly associated with improved attitudes to mental illness, increased knowledge and self-efficacy compared to leaflet information only which had no significant impact (Moffitt et al., 2014) These findings were mirrored in a recent review of MHFA, which found improved mental health literacy, recognition of mental disorders, knowledge of treatments, ability to help someone with a mental health problem, and decreased stigmatising attitudes in those who has received training (Morgan et al., 2018). However, evidence is lacking about its impact on the recipient's mental health.

TRiM

The systematic review identified two studies in this area, which found that the use of TRiM was related to a reduction in sickness absence, especially in junior ranks (Hunt et al., 2013) and reduced PTSD symptoms (Watson and Andrews, 2018). Watson and Andrews (2018) also found that police forces that used TRiM experienced fewer barriers to seeking help and had reduced public stigma concerns, suggesting its use contributes positively to the wellbeing culture within the service.

Critical Incident Stress Debriefing (CISD)

To address the apparent risk of developing psychological disturbances, CISD was developed in the 1980s as a preventative intervention for PTSD and related symptoms in ERs (Jeannette and Scoboria, 2008). It consists of a peer counselling group procedure with psychoeducational components providing information on various stress reactions (Harris et al., 2002). The systematic review found no studies investigating this intervention in ERs, however international work has been done in this domain.

Some research suggests that voluntary expression of feelings post incident is neither beneficial nor harmful (Halpern et al., 2012), other studies have suggested that certain individuals with high levels of arousal may be put at a heightened risk for adverse outcomes as a result of early debriefing (Jeannette and Scoboria, 2008). Overall, empirical evaluations of CISD have produced little evidence in support for the intervention (Harris et al., 2002). One systematic review found that six trials of post incident debriefing showed no benefit, with two suggesting that those who had been debriefed had a worse outcome than a control group and two trials suggesting benefits (Greenberg, 2001). This review concluded that CISD was ineffective as a stand-alone strategy and may be detrimental in that it may make PTSD and other adverse

psychological outcomes more likely. Subsequent reviews have shown CISD to be ineffective and even harmful (Rose et al., 2003). Indeed, NICE guidelines expressly recommend against the use of psychologically focused debriefing in the prevention or treatment of PTSD¹⁸. Instead, they recommend 'active monitoring' or 'watchful waiting' during the first month post-incident, to help judge whether further intervention may be needed.

A possible reason for this is that reactions to trauma vary in that PTSD is a possibility and not an inevitability, hence other psychological problems (e.g. anxiety) are just as likely to be outcomes of traumatic incidents. Although the prevalence rates of PTSD amongst ERs are inconsistent in the literature, we know that that up to a third of emergency responders develop post-traumatic symptoms (Lieberman et al., 2002). Based on Canadian data, a criticism of CISD is that it focuses solely on PTSD, an outcome not common to the majority of ERs and may interfere with natural recovery processes (Greenberg, 2001, Jeannette and Scoboria, 2008).

From our systematic review, ERs in Ørner (2003) indicated that they did not want formal medical intervention after critical incidents but preferred informal support. Jeannette and Scoboria (2008) suggest that overall Canadian firefighters reported informal support as most desirable. Informal discussion received the highest ratings, with respondents endorsing the importance of a strong, informal, institutional culture to deal with everyday challenges. More recently, a sample of Canadian volunteer firefighters showed that despite the numerous critical incident exposures, most of the sample reported a lack of training in PTSD and critical incidents and would like to see this training provided (Brazil, 2017). In line with this, a study of US and Canadian paramedics suggested that educating paramedics about identifying emotions

could offer a new approach to preventing the adverse effects of post-incident stress (Halpern et al., 2012).

Lived experience videos

No work in this area was found by the systematic review in the UK, however there is some initial work in the US with the fire service that suggests the use of online videos to ERs experiencing mental health issues may be beneficial. Davidson et al. (2018) suggest using digital storytelling (i.e. using videos of champions or senior figures talking about their experiences) may help viewers destigmatise mental health issues, make sense of their own experiences, support them to better recognise and articulate their own symptoms, and allow them to explore different coping and treatment strategies available. Furthermore, evidence suggests that these types of 'experts-by-experience' videos can help to challenge perceptions about mental illness, enhance self-efficacy and increase help-seeking behaviours in a variety of mental health contexts (De Vecchi et al., 2017).

eHealth

The systematic review found no studies investigating the use of eHealth or technology to support wellbeing in a UK ER population, this is an area that requires more research. This finding is similar to research conducted by Marston et al. (2020) (in prep), who conducted a scoping review of international research on mobile health applications being used by the emergency services and found only two published articles. Exeter University are currently investigating whether the use of Fitbits by ERs can encourage a less sedentary lifestyle, make users more active, and result in lower levels of physical and psychological illness. Initial (unpublished) findings suggest that the Fitbits increase activity in those who were not doing very much physical activity before,

but Fitbits do not increase activity levels in those who were fairly active in the first instance (ID 10, Police). Lastly, an RCT conducted by the College of Policing involving more than 1,300 officers and staff found that using a mindfulness app could significantly improve job performance, personal resilience and wellbeing in comparison to controls (Fitzhugh et al, 2019).

Charity support

The voluntary sector provides wellbeing-related support to ERs in a time of public sector austerity, however research in this area is scarce. We are aware of some progress in this domain, as there is an ongoing research project being carried out by one of the report's authors (HK). This study aims to gain a broad understanding of the role of the charity voluntary sector in providing holistic support to police. The Open University research explored types of wellbeing services, charity ethos, accessibility, beneficiary types, funding, gaps/challenges, and the role of charities as part of a package of support.

Initial findings from the research indicate enormous heterogeneity in police wellbeing charities in terms of their size, the support and provision they offer, and in terms of how they are organised, administered and managed. For example, while large charities account for 9% of the police wellbeing charity sector (in terms of organisation numbers), they generate 70% of the sector's income. Furthermore, what the different charities offer varies according to geography, income, the job role of beneficiaries and alternative provision, meaning no two charities are alike and therefore national coverage of support will be varied.

Overall charities play a significant role in police wellbeing support, offering an incredibly diverse array of holistic services including physiotherapy, counselling, debt advice, peer support, research and training, and the provision of grants and

interest free loans. Support dovetails with statutory assistance and has developed in symbiosis with police forces, the public sector and the needs of the individuals. Of particular importance to the sector is the fact that police charities tend to employ an approach which is independent, occupation-oriented, preventative, timely, bespoke and confidential. These factors are important, as they may help to encourage help-seeking behaviour, by circumventing issues such as in-force stigma that may otherwise act as a barrier to accessing support. However, many of the charities report experiencing challenges around awareness raising, access to services, bureaucracy, and financial sustainability of their activities. Thus, more recognition and investment is needed in this sector.

Mentoring

While not identified as a wellbeing support strategy by the landscape review, the systematic review identified two studies that found positive outcomes for the effect of mentoring on female police, which increased confidence, self-awareness about abilities, feeling empowered and improved strategies to handle work/life balance and promotion related activity (Carson, 2009, Jones, 2017). Thus, mentoring may be a successful wellbeing intervention, and should be considered by services as such.

Cognitive Behavioural Therapy

In-house or externally provided counselling and psychological interventions were often mentioned by interviewees as a core part of their wellbeing provision. While it is unclear exactly what type of treatment is on offer in these sessions, cognitive behavioural therapy (CBT) is likely to be a key strategy. The systematic review identified one study that investigated the effect of different treatments for mental health problems, namely, trauma focused cognitive behavioural therapy (TF-

CBT) versus TF-CBT using compassion focused therapy (CFT) as an adjunctive treatment. Both TF-CBT and TF-CBT-CFT groups saw significant reductions in symptoms of depression, anxiety, hyperarousal, intrusion, avoidance and increases in self-compassion. TF-CBT plus CFT was more effective than TF-CBT alone for self-compassion improvements, however the study noted that the sample may be too small to confirm efficacy (Beaumont et al., 2016).

KEY HIGHLIGHTS

- Overall, the implementation of wellbeing provision has outpaced evaluation research. There was limited evidence assessing interventions with mixed outcomes in terms of their effectiveness for improving wellbeing.

Chapter 5

What are the gaps in provision and what is the scope for improvement?

5.1 Research

The systematic review revealed there was a dearth of research evaluating the acceptability, utility and efficacy of wellbeing support interventions and strategies in the UK ER population; and there are many health and wellbeing areas with little or no research. Furthermore, of the 50 different types of mental health and wellbeing initiatives/strategies that were identified (see Table 2), the systematic review found only five as having peer-reviewed, published research associated with them in the UK (resilience training, MHFA, TRiM, CISD, CBT). While these interventions were generally found to be acceptable to ERs, only three studies investigated mental health outcomes in ERs, and only two of these were found to be effective interventions (TRiM and TF-CBT/TF-CBT-CFT). Thus, considerably more research is needed in this area.

RECOMMENDATION

Need to conduct research specifically focused on intervention evaluations, eHealth, and service utilisation. It may be particularly beneficial to focus on assessing interventions that fill gaps in provision.

On-going research projects

We acknowledge that the systematic review only identifies UK-based research that has been published in academic journals. As such, one of the aims of the landscape review was to try to identify research that is currently underway (and unpublished). Several research projects were identified either through interviews or through internet searches, so the evidence base for wellbeing and support in the emergency services is likely to increase. However, as these are ongoing unpublished pieces of work, it is difficult to say what the outcomes are likely to be. Identified projects investigating interventions are outlined in Table 6 below.

Identifying ongoing research proved difficult, as online searches only identified eight ongoing research projects; and interviews produced limited information. It is likely that many ongoing research projects have been missed from this report. There is a need to better facilitate the sharing of research in this area, and to build a supportive research community to encourage collaborations that can potentially address the research gaps that currently exist in the literature.

Table 6 - Ongoing Research Projects by Service

Fire

Nottingham Trent University is assessing social transitions into retirement and post traumatic growth.

London Metropolitan University is examining nutrition and eating habits.

Bath University is monitoring the physical health and wellbeing of firefighters. While not an intervention in itself, this research may inform future strategies for supporting firefighter wellbeing.

University of Brighton is looking at the effects of exposure to heat and contaminants effects. While not an intervention study, it may help to better inform wellbeing strategies in the future.

Ongoing research about Grenfell by Public Health England and Reading University.

Zeal Solutions to do an 18-month cultural audit with a Fire service using focus-groups, questionnaires and validating data repeatedly exploring different elements of their culture and how it impacts on health, wellbeing and productivity.

Fire Fighters Charity do their own evaluation. They have a research group and are setting up their research strategy for the next 3 years

University of Roehampton is carrying out research investigating inflammation and contaminant levels in firefighters and the impact of the menstrual cycle and menopause on heat tolerance. While not an intervention study, it may help to better inform wellbeing strategies in the future.

King's College London are using biobank data to investigate the mental health of emergency services personnel in comparison to the general working population. While not an intervention study, it may help to better inform wellbeing strategies in the future.

The University of Liverpool is looking at how common alcohol problems are in the UK Police Service, and the level of comorbidity with mental health problems. While not an intervention study, it may help to better inform wellbeing strategies in the future.

Continued overleaf

Table 6 - Ongoing Research Projects by Service *(continued)*

Ambulance

University of Lincoln, Edge Hill University and the University of East Anglia are examining sickness absence rates and undertaking analysis of the strategies and policies for every ambulance trust and service.

University of Oxford is working with South East Coast Ambulance Service students looking at their wellbeing from students to qualified paramedics; and investigating whether early intervention can prevent depression and post-traumatic stress disorder.

University of Bradford is assessing resilience training for staff.

Research commissioned by Health Education England and led by Yorkshire Ambulance is reviewing wellbeing initiatives across the UK ambulance services.

University of Sheffield and University of Surrey are independently looking at retention of ER workforce. While not an intervention study, it may help to better inform wellbeing strategies in the future.

The Yorkshire and Humber Patient Safety Translational Research Centre is looking at enhancing workforce engagement, well-being and patient safety in ambulance services: a mixed-methods exploratory and interventional study using feedback.

University of East Anglia is investigating solutions to fatigue and poor sleep quality.

University of South Wales is investigating ways of improving care for staff of health services; resilience of emergency workers; psychosocial aspects of emergencies, disasters and major incidents (including investigating the long-term impacts of the Manchester bombing in 2017).

TRiM is being evaluated by one ambulance service using the Warwick-Edinburgh Mental Wellbeing scale.

MHFA is being evaluated in at least one ambulance service.

The University of Plymouth and Glasgow Caledonian are exploring the perceptions and experiences of staff mental health support, led by South Western Ambulance National Health Service (NHS) Foundation Trust.

The University of Leeds is exploring the work-related determinants (and impacts) of wellbeing amongst ambulance service staff and looking to identify opportunities for intervention.

Table 6 - Ongoing Research Projects by Service *(continued)*

Police

Lancaster University is investigating the utility of psychological screening.

University of Central Lancaster - Landscape review investigating wellbeing and supportive initiatives across the UK.

Police staff surveys are conducted with support from Durham University (just collected baseline of 34 forces), which are used to investigate the impact of interventions (such as hindrance stressor reporting).

Nottingham University is reviewing peer support networks in Devon and Cornwall.

Leeds University is interested in investigating suicide prevention with police.

Imperial College London is carrying out the Airwave Health Monitoring Study, investigating whether there are any long-term health impacts of Airwave use on police personnel.

Exeter University is looking at the impact of FitBits in police on physical and psychological wellbeing.

Police Care and Cambridge University are assessing PTSD in large police study.

Police Care and National Association of Retired Police Officers are looking at assessing new support for transition to retirement.

The Open University is exploring the use of charities as wellbeing support.

Essex Police are evaluating the impact of their Feel Well, Live Well program.

The College of Policing is looking at evaluating the effectiveness of peer support; and in collaboration with the University of East Anglia are investigating the efficacy of mindfulness -based eHealth interventions.

KEY HIGHLIGHTS

- ♦ Identifying on-going research projects proved difficult and was primarily reliant on word of mouth.
- ♦ Several on-going projects/studies were identified assessing mental health and wellbeing in ERs, including the topics of transition, peer support and suicide prevention.

RECOMMENDATION

The sector could benefit from the creation of a 'Research Consortium' where researchers can utilise shared resources in aligning research measures, can make connections, and can share their research ideas. This is more likely to increase collaboration, research grant funding success, and decrease duplication of work.

5.2 Practice

As part of the interviews, each participant was asked to identify any gaps in current provision and describe the changes they would make if budgets and resources allowed. Twelve priority areas were clearly identified, which are outlined below.

Suicide prevention training and/or support

The most frequently cited area that should be targeted for more support was suicide prevention and support. A number of services already had basic provision in place but were keen to expand this further. This prevention and support was related to colleagues who had taken their own lives and the support needed for ERs who were exposed to suicides in their roles:

“Regrettably there are a lot of suicides in the emergency services... that’s just not by coincidence, those services are above the national average” (ID 20, Fire)

“We have a huge increase in turning up to attempted suicides” (ID 21, Fire)

“We have some quite high-risk areas where the teams are repeatedly exposed... there has been some really nasty incidents that have happened” (ID 26, Coastguard)

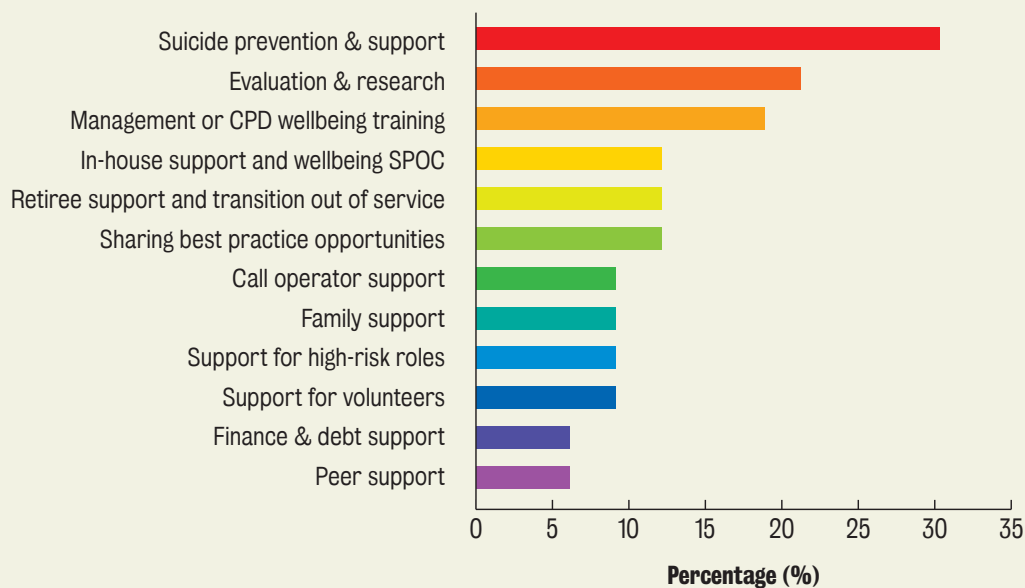
Furthermore, being able to provide support for those who have retired was flagged as a priority:

“We’re trying to do some work now at the moment about the recently retired... we have had suicides in that group of people, which I think is an issue for the police force as well.” (ID 27, Fire)

RECOMMENDATION

Explore and examine effective models of suicide prevention with the ER sector to enable consistent implementation of evidence-based suicide prevention models.

Figure 12 - The proportion of interviewees who identified different gaps in provision (N=33)



Support with monitoring and evaluation

The next area that was identified as needing more work was that of monitoring and evaluation.

In particular, participants noted that it can be challenging for services to conduct robust monitoring and evaluation because: a) many do not have the tools/skills to measure in-house and b) external providers tend to be expensive, which means monitoring and evaluation does not get prioritised. However, many felt this was an area where work needed to be done:

“a University... they wanted to charge us something ridiculous about £30,000 and we didn't have the money to do that” (ID 21, Fire)

“The first thing for me would be that proper measurement... that's an expensive piece of work to have done but it's an important one for me because otherwise you're just sort of thrashing about doing staff surveys and slinging in initiatives and hoping they're going to have an impact without being able to properly understand what the unintended consequences or nil consequences of those initiatives might be.” (ID 38, Fire)

Interviewees were also asked whether they undertook any monitoring or evaluation activities related to their wellbeing provision. Thirty-six percent reported undertaking no formal monitoring or evaluation, 9% reported undertaking pre-post project evaluations, an additional 12% were involved in wellbeing related research projects with universities, and 9% had external companies doing evaluation work on specific interventions. Beyond that, any remaining monitoring took the form of examining programme usage data, or referral rates, or collecting (often informal) qualitative feedback, but did not look at wellbeing or mental health outcomes. Thus, there is a need to better evaluate the initiatives that are in place in terms of impact and efficacy.

While 42% of interviewees reported carrying out regular staff surveys, these were usually from an occupational perspective, and were not linked to any specific interventions or psychological outcomes.

RECOMMENDATION

Explore current available resources to facilitate organisations to carry out standardised, context-specific evaluations of their mental health/wellbeing support services to enable better outcome measurement and feedback to improve support services.

Additional training for managers

While a number of interviewees mentioned that their organisations offered wellbeing training, many felt this needed to be improved. The need for emotionally intelligent managers was often highlighted as a priority area for improvement:

“I think the biggest problem I see is line managers... most interactions I have with people who've got a mental health condition, if they've got a good line manager who is supportive, they tend to think quite positively of the organisation; if they've got a line manager who they don't perceived as being supportive, they tend to have a very negative view of the organisation. And I think from my work in 10 years that's the one that really screams out... because that's the person who is going to make you feel welcome when you try and get yourself back to work. That's the person who's going to be able to put reasonable adjustments in place for you... So, I think the biggest improvement is greater education of our line managers, both in terms of what they can and what they can't do, and just general awareness around mental health.” (ID 4, Police)

RECOMMENDATION

Explore and support evidence-based Continuing Professional Development resources, to upskill managers in terms of mental health and wellbeing and help promote senior buy-in and foster a culture of openness and supportiveness around wellbeing issues.

Retirement support

One area that was highlighted by many of the interviewees was the lack of support that was available to retirees. In most cases, interviewees suggested that retired personnel no longer had access to wellbeing support, and retirement transition was usually managed with workshops or talks focusing on the financial side of retirement. This is problematic as research suggests emergency service personnel need to be prepared emotionally for their retirement. For example, the loss of a close-knit community and the camaraderie that is often associated with working in the services can be detrimental to their wellbeing (Patterson et al., 2001, Ruiz and Morrow, 2005). Indeed, in terms of the police force, Cameron and Griffiths (2017) highlighted a number of potential issues associated with retiring from the service, including inadequate retirement preparation, financial challenges, difficulties navigating the civilian job market, low mood, and feelings of isolation and abandonment.

“You’ve got things like NARPO: The Retired Police Officers Association. You’ve got links to the Fed still, but there is no provision in the same way that the military do it through the Veterans Association. And in fact, if I’ve got an officer that’s got particular mental health issues, whether it’s stress, anxiety, PTSD, anything like that, if they’re ex-military you can very quickly open up a whole different raft of support through the Veterans Association. And I will signpost any person that’s had military service to them very quickly. But for policing that just doesn’t exist.” (ID 28, Police)

“The other thing we are looking at as well particularly around wellbeing and social wellbeing is around transitioning to retirement” (ID 2, Fire)

Interviewees were also explicitly asked whether or not their organisations offered support for retirement and retirees. While 12% were unable to answer the question, 33% said there was no support for retirees or for transition out of service.

Thirty six percent said retirees were given pre-retirement workshops or courses (predominantly about pensions and financial planning), and 6% said retirees could still access their EAPs. The most common method of support (48%) was providing external signposting to either charities or post-retirement networks. Internet searches also revealed little support for retirees.

RECOMMENDATION

There is a need to better understand the mental health and wellbeing needs of retirees specifically around transition, retirement and post-service employment/career advice, and to explore appropriate future provision of support to enable successful transition out of ER roles.

Increased in-house wellbeing and support single point of contact

Several interviewees noted that they would like increased internal wellbeing support, and specifically felt that both the service and its employees would benefit from having a clear, single point of contact for wellbeing needs and support.

“We would absolutely advocate for more wellbeing mental health practitioners. So, at the moment we’ve got two covering the east and west so that’s nearly 4000 members of staff that these two people are covering on their own.” (ID 23, Ambulance)

“I would create a wellbeing team, which would be led by a band 7 level adult mental health nurse or that sort of person, with significant management skills...some administration maybe to act...as the initial point of contact. So we might actually consider closing down the easy access to our EAP scheme, it would still sit there, but everybody would go through this portal so that these people can actually go actually you know

what we've just had 40 calls over the last six months from department A, there's clearly an issue in department A we need to go and have a look at department A to find out what's going on." (ID 29, Ambulance)

Sharing better practice opportunities

The benefits of sharing better practice were highlighted by several interviewees. In many cases it was stated that wellbeing support had been based on what other branches or services had put in place, and what they heard had worked well. However, many felt that there were not enough opportunities to share better practice within or across the services. When sharing did happen, it was usually only done at a local level, and was often done informally. There was a sense that since the BLWP has ended, there were no real formal mechanisms to share best practice, and that this might be an area to target in the future.

"But obviously if there is good practice out there that would be good to know. Obviously, we've got a Reform Group. But that's looking at recruitment, training of staff; not looking at mental health and wellbeing." (ID 35, Fire)

"It might be worth something looking at in the future if the things that we're doing don't work or there are things that other people are doing that they can pass on... I have noticed as a general rule emergency services don't tend to share best practice." (ID 18, Police)

RECOMMENDATION

Promote sharing of 'better practice' across the sector, for example, by encouraging cross-collaboration and the showcasing of effective wellbeing frameworks and initiatives.

Support for specific groups – call operators, volunteers, high risk roles

A number of interviewees highlighted that call operators were often overlooked when it came to wellbeing support and may not be recognised as potentially being exposed to traumatic situations.

"Especially with our control room staff who often get forgotten about and work sometimes with the more serious cases and it's difficult in a control room on a night-time with a few of you hearing some of the things that they hear" (ID 21, Fire)

"I'd like to incorporate some clinical supervision within the control room environment for staff as standard because actually we don't have anything that's a wraparound to support our staff for ongoing audio trauma.... when you think, our call-takers do 12-hour shifts, our dispatches do 12-hour shifts, 12 hours, four days, that's a lot of hours where you're sat listening to some of the most horrendous things going really. And we don't have any wrap around support for that." (ID 18, Police)

Several interviews identified support for volunteers and volunteer organisations as an area in need of development.

"You've got this big voluntary bod, but what we'd never really looked at is what were the priorities for those voluntary bodies" (ID 26, Coastguard)

"Volunteer responding is quite different to many other things... the responding element, that is the difference. So, I think there's certainly potential there to look at stuff" (ID 33, Mountain Rescue)

Furthermore, interviewees were asked whether or not volunteers in their organisation received the same level of support as full-time employees. While 27% were unable to answer the question, 39% said volunteers did have access to the same support; 15% said they did not have access to the same support, and 18% said they had access to some support but not all. For example, they often had access to an EAP phonenumber, but would not be eligible for face-to-face support or counselling.

A number of interviewees felt that certain groups of people may be at a higher risk of wellbeing issues than others, and that perhaps more targeted support should be available for them. As well as involving job roles that are at a higher risk of trauma exposure, isolation experienced as a result of lone working was also mentioned as a potential trigger for poorer wellbeing. Given that the proportion of lone workers is increasing across the services, this may be a group that is worth considering under the 'high risk' bracket in the future.

"It could be people working in child sexual exploitation... we're going to be producing some sort of general help sheets targeted at people in those high-risk roles" (ID 9, Police)

"Lone workers, especially out in the Highlands, may be under extreme pressure because there's so few of them, especially if they've got specialist training and they're in demand going from one traumatic incident to the next, with a long emergency drive in-between. And who do they talk to?" (ID 33, Mountain Rescue)

RECOMMENDATION

Future support should assess the wellbeing needs of volunteer roles and examine specific support needs of call operators and high-risk roles such as those exposed to trauma or isolation (e.g. those lone working or analysts working in child abuse/exploitation).

RECOMMENDATION

The ER sector should examine what support can be offered to volunteer ERs by promoting cross-service collaboration and facilitating relationship building across the emergency services sector.

Support for families

Many interviewees stated that families were usually not well supported by the emergency services and felt that this is an area that would benefit from more provision. This is discussed in more detail in Chapter 7.

Finance and debt support

One issue associated with wellbeing that was flagged as underserved was debt support. In most cases, this was only supported through external signposting.

“people are often asking for financial advice” (ID 27, Fire)

“we do understand how many of our police officers and police staff could really be at risk of debt problems.” (ID 16 Police)

The systematic review flagged this as an area that lacked research, thus supporting a better understanding of debt and support in ERs would be beneficial.

Peer support

While a number of organisations reported having peer support in place, some organisations that did not highlighted they would like to see peer support models implemented. Research suggests that peer support frameworks are generally well accepted, and can result in better working relationships, improvements in staff mental health, which in turn can positively impact organisational effectiveness (LaMontagne et al., 2007).

“we’re hoping to roll out peer support training, based on a Canadian model to all UK forces who want it and don’t already have peer support in place” (ID 17, Police)

“We do not currently have a peer support network. There are one or two informal peer support networks within the service... but that’s probably something we need to think about going back into.” (ID 29, Police)

RECOMMENDATION

Promote and extend support for mental health/wellbeing ‘champions’ and help promote peer support within ER organisations.

Tackling variation

The landscape review highlighted the considerable variation in wellbeing support provided by organisations. Furthermore, the emergency services rely heavily on charity sector support to provide wellbeing provision, demonstrating that existing in-house support is often not enough. The nature of support that is offered through external signposting varies enormously geographically, both within and between services, which can be difficult to navigate.

RECOMMENDATION

Encourage collaboration between the charities in provision of support and create better signposting to charities to support potential users.

RECOMMENDATION

Facilitate better access to mental health and wellbeing support through the creation of a ‘Universal Gateway’ website (analogous to the Veterans’ Gateway; or <http://www.cipsrt-icrtsp.ca/>) or a tool that will aid ERs to navigate support options (including charitable provision), increase visibility of services, enable routes into care pathways and provide online self-assessment to increase recognition of potential mental health and wellbeing problems.

5.3 Limitations of our landscape review

Individuals who were interviewed had been in their job roles for different lengths of time and so may have had different amounts of exposure and knowledge of the various wellbeing initiatives that were available within their service. In addition, all but one was enthusiastic about the wellbeing work they were doing, and thus may have biased views due to their direct involvement in mental health and wellbeing work. Furthermore, it is unlikely that all aspects of support were captured by the interviews, and the information provided is unlikely to be exhaustive. Therefore, we recognise that the absence of information about a specific initiative or programme does not necessarily reflect the absence of that activity in reality.

Unlike a research-based literature search, there is no established search framework when identifying information on the Internet. Therefore, internet search results will vary whenever a search is repeated due to the ongoing exchange of online information, limiting future replication of results. Searches were carried out in a pragmatic, and not systematic fashion, in an attempt to mimic what someone looking for information about wellbeing support might search for. As such, it is unlikely that the results are exhaustive.

To our knowledge, this is the first time a landscape review of mental health provision and support services has been conducted and collated across all ER services in the UK. As such, we believe this is the most comprehensive information that currently exists in terms of ER wellbeing support and offers useful evidence on which to build.

KEY HIGHLIGHTS

- ♦ Stakeholders identified the following as gaps in provision and areas where they would like to see more work: suicide prevention and support; mental health and wellbeing training for managers; peer support; debt and financial support; help with monitoring and evaluation of wellbeing programmes; more support for families and for specific groups who are currently underserved (including those transitioning into retirement, retirees, call operators, volunteers and ‘high risk’ roles); and better in-house support and access to support.
- ♦ Stakeholders reported that there was a need to facilitate sharing of knowledge and better practice both within and across the emergency services.
- ♦ Stakeholder interviews and the desktop-based research found emergency services relied heavily on charity sector support to provide wellbeing provision; however, geographical provision and access to these services was incredibly varied.

Chapter 6

Are there barriers and facilitators associated with current service provision for mental healthcare and wellbeing support for UK Emergency Responders?

As our work examines current service provision, we wanted to understand whether there were barriers to implementing or accessing that provision. To complement this, we also wanted to explore any potential facilitating factors aiding provision or engagement in support services to gain a full understanding of the practicalities of implementation and access.

6.1 Interview findings

What are the barriers and facilitators to implementing health and wellbeing initiatives in the emergency services?

Understanding the barriers and facilitators to the implementation of workplace health and wellbeing support in the emergency services could help to develop our understanding of ‘what works’ and ‘what does not work’ in this context and inform avenues of future support initiatives. To this end, interviewees were asked to identify barriers and facilitators of implementation of mental health and wellbeing services. In this section we restate our previous practice recommendations where appropriate, in light of feedback regarding facilitators aiding implementation of mental health and wellbeing programmes.

Four overarching themes were identified:

Table 7 - Barriers and facilitators of implementation and usage/engagement

Theme	Examples of problems
1. Barriers to implementation	<ul style="list-style-type: none"> ♦ Limited funding or resources ♦ Mismatch between corporate vision and individual need ♦ Lack of data about need, usage and efficacy ♦ Culture of organisation
2. Barriers to usage/engagement	<ul style="list-style-type: none"> ♦ Stigma ♦ Lack of trust ♦ Management referrals ♦ Poor accessibility ♦ Poor awareness/lack of recognition ♦ Making wellbeing activities 'extracurricular'
3. Facilitators of implementation	<ul style="list-style-type: none"> ♦ Culture of openness ♦ Buy in from the top ♦ Bottom-up strategy development ♦ Sharing best practice ♦ Collaboration across services
4. Facilitators of usage/engagement	<ul style="list-style-type: none"> ♦ Emotionally intelligent managers ♦ Allowing self-referrals ♦ Immediate contact availability ♦ Inhouse support available

Theme 1. Barriers to the implementation of wellbeing services

The first theme identified captures respondents' perceptions of the overarching barriers to implementing workplace wellbeing support within the emergency services. Several interviewees referred to the emergency services as being limited by the current economic climate, describing them

as operating in "times of austerity"; and suggesting this has had a knock-on impact on their ability to effectively implement wellbeing services. Furthermore, budgets were flagged as being a cause of the disparity in wellbeing provision within and across the services. Participants believed the police had higher levels of wellbeing investment compared to other services and felt their provision was more comprehensive as a result.

“The blue light framework isn’t embedded within the fire and rescue service... you may be aware that the police were provided £9M worth of funding from the Home Office to improve the wellbeing within the police” (ID 20, Fire)

“I think that they vary a great deal... I mean if you take occupational health and wellbeing services, they are set up based on crudely what the employer can afford to pay for. So that’s one of the reasons that there’s a degree of variance” (ID 5, Police)

Some interviewees mentioned that it was crucial to have good monitoring and evaluation data to back up the initiatives that are put in place; and flagged that an absence of this type of data can act as a barrier to implementation, particularly in an austerity context where spending is scrutinised and needs to be justified.

“I think particularly they need to feel like the support that they’re offering is really robust and evidence-based” (ID 8, Fire)

Others mentioned that the focus on corporate (rather than individual) need has acted as a barrier to provision in the past. For example, wellbeing strategies have often been based on statutory requirements, rather than needs-assessments and overcoming that is key to facilitating suitable wellbeing provision.

“So, everything that we have in place currently was developed through statutory requirements. But we realise that is not enough. Everything that we are now developing for the future will be based on the health needs assessment that we now run.” (ID 5, Police).

RECOMMENDATION

Explore current available resources to facilitate organisations to carry out standardised, context-specific evaluations of their mental health/wellbeing support services to enable better outcome measurement and feedback to improve support services.

Theme 2. Barriers to usage of wellbeing services

The second theme describes why, when wellbeing services are in place, they may not be utilised. The most frequently mentioned barrier to uptake was stigma, and the macho culture that can sometimes be seen within the emergency services.

“the uniform becomes a bit of a mask. And when you’re wearing the uniform you kind of put on this persona. And there’s some unspoken rules around emotional regulation and emotion management that means that you don’t always express how you feel because you shouldn’t because you’re a professional and our culture is around almost like “man-up and get on with it” kind of thing” (ID 40, Ambulance)

“it’s a mainly manly service so we have to break down the stigmas and that’s what a lot of the challenge is.” (ID 21, Fire)

Although there was explicit recognition that “stigma is starting to be broken down” (ID 33, Mountain Rescue), more work to help reduce stigmatising attitudes is likely to be beneficial in this area. In particular, strategies that use senior figures to destigmatise mental health issues were flagged as being helpful. This finding regarding stigma as a barrier to help-seeking was consistent with our systematic review findings in UK published academic literature.

In addition, the issue of trust was highlighted as important in terms of intervention engagement. There were two dimensions that came up in the interviews; the first being that staff need to trust that the support services available are truly confidential, and that there will be no negative repercussion from using the service.

“there’s still an awful lot of suspicion, rumours, misunderstanding from staff that, or concerns, is this information really confidential, you know, and I think that’s a barrier” (ID 34, Fire)

When that trust is broken (as it was in one case providing peer support), it can catastrophically affect the usage of that program.

“We wrapped our peer support up about seven or eight years ago because it ceased being used for reasons we’ve never worked out. And we think there was probably a breach of confidentiality. And

that literally over a period of two months it went from reasonable use to no use.” (ID 29, Police)

The second aspect of trust that was highlighted was the idea that users need to trust that the support they are given is relevant to them, and that those providing the support understand their needs. When this is not the case, it can act as a barrier to usage. This highlights the potential importance of a shared understanding of issues, and context-specific support.

“our staff don’t feel like someone on the outside of the service necessarily understands what they go through” (ID 21, Fire)

“I don’t think the national stuff works because people feel that it’s being imposed on them. And as soon as they feel it’s imposed the barriers go up” (ID 26, Coastguard)

Accessibility issues, such as not knowing where to go for help, was also seen as a barrier to help-seeking, as were wellbeing strategies that occurred outside of working hours.

“people need to know what the services are, how to access them and what else would be available.” (ID 15, Police)

“I think we need to remind them what is available to them.” (ID 27, Fire)

“you come in on an extra day and do a five-day week. So unfortunately, the overarching feeling from people is that they are here on a day off.” (ID 18, Police)

There was also an acknowledgement that ERs may not recognise the issues they have, or have the language to express their symptoms, which highlights the need to continue to raise awareness in this group.

“I don’t necessarily think the emergency services have a language to talk about wellbeing that’s well-rehearsed” (ID 2, Fire)

“I guess my observation from speaking to lots of people is that people found it very difficult to articulate what it was they wanted or needed” (ID 8, Fire)

RECOMMENDATION

Support destigmatising strategies within ER organisations, for example, through the continuation of mental health champions or by creating online video resources where ERs who have experienced mental health issues can share their stories.

Theme 3. Facilitators of implementation

Organisational culture was one of the most commonly mentioned themes that was seen to facilitate wellbeing strategies (and which was seen as playing a key role in the disparity of provision available across the emergency services). Promoting a culture of openness about mental health was commonly mentioned as being essential for both implementing wellbeing support and encouraging usage.

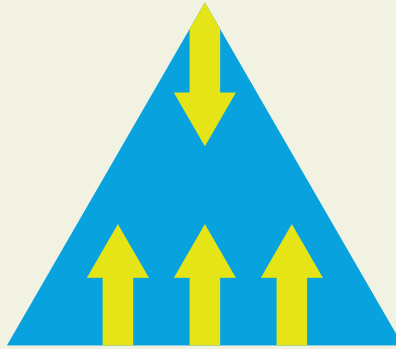
“I guess the important thing is that none of these things will really have an impact unless the culture of the organisation is open and willing to support employees... when it really has a positive effect is when management makes time to support wellbeing and do those activities. And then it comes from the top and management are supportive and approachable... without that anything would struggle to get off the ground. But when it’s supported and encouraged from within, then that’s when it can really make a difference.” (ID 8, Fire)

Integral to a culture of openness and support was the idea that there needs to be ‘buy in’ from the top for initiatives to get off the ground. But equally, having input from the ‘bottom’ was also seen as necessary (i.e. those on the ground shaping their own wellbeing provision by need).

“where it’s really worked, where things are really working is where there’s senior management buy-in” (ID 34, Fire)

Figure 13: Top down and bottom up facilitators

Buy-in from the top
It is imperative that those at 'the top' buy in to wellbeing initiatives. They must encourage, drive and invest to make provision work and to help nurture cultural change



Input from 'the bottom'
In order to ensure initiatives are successful, it is important that those 'on the ground' feed into wellbeing initiatives. 'Top down' approaches that feel imposed may galvanize initial interest and spark progress but will not be as effective

"We went out and consulted with the watches. It was something they hadn't done before... they were going 'we're not used to people asking us what do you want', you know, because I said 'we don't want to come along and deliver something that isn't useful for you'" (ID 13, Fire)

In addition, sharing better practice and promoting collaboration within and across the services was seen as positive in terms of designing and implementing wellbeing strategies.

"The model was based on best practice from other ambulance services. The physio side of things was based on (one service) and mental health that was based on (another service)... so we took both of them and developed it into our own hub..." (ID 23, Ambulance)

"if we need to put on a training course and we've got spare spaces I'll ring my colleagues in the police... we're thinking of having like a wellbeing van going around where they can just as well visit a fire station as well as a police station... in the

future, we may even consider a shared emergency services occupational health unit" (ID 32, Fire)

"one thing that has had a big impact, is the fact that we can partner quite closely with the police and their provision of the EAP" (ID 33, Mountain Rescue)

"I think there's pockets around that really feel like really good practice, and that meeting that we had three or four weeks in to kind of share best practice there was lots of really good stuff in the other organisations, and some did some things really well and other things very, yeah not quite so well. So, we can all learn from each other. So, I think that's a good thing." (ID 24, RNLI)

Thus, there is an opportunity to increase learning and sharing of best practice across all the emergency services in England, Wales, Scotland and Northern Ireland. Increased knowledge exchange opportunities would be beneficial and may promote better collaboration.

RECOMMENDATION

Promote sharing of ‘better practice’ across the sector, for example, by encouraging cross-collaboration and the showcasing of effective wellbeing frameworks and initiatives.

Theme 4. Facilitators of usage/engagement

The need for emotionally intelligent leaders and line managers to help create a culture where staff can speak openly and honestly about their mental health and wellbeing was highlighted as a facilitator of wellbeing support engagement. This was also supported by evidence in our systematic review that found positive leadership support was associated with better mental health and wellbeing outcomes (Soh et al., 2016, Boag-Munroe et al., 2017). This outlines the importance of having good managers in place who understand and support wellbeing in the workplace, highlighting the potential opportunity for managerial training or Continuing Professional Development (CPD) around wellbeing.

“we’re just doing an online manager mental health training pilot. We know the line managers are absolutely key in how staff are treated and what impacts them, and what help they can get” (ID 11, Police)

“it’s trying to get our leaders to understand that their teams do not work for them, but they in fact work for their teams. And at the heart of that is emotional intelligence and emotional awareness. And actually having leaders that are really comfortable with delivering good quality one-to-ones and personal development with their teams, sitting down and being happy to talk about mental health, financial wellbeing, issues that people are suffering in their personal life, and recognising that they need to look after their people, both in terms of their development, their wellbeing, their performance, and it is all linked so that actually

if you look after your people they will perform for you.” (ID 28, Police)

“Sometimes it’s a process of a good manager. So, if somebody’s a little bit withdrawn, and that’s OK for a little while, but it’s not, they’re not seen to shake it, it’s an opportunity to have the conversation to see how they’re at. But instead of trying to possibly counsel them themselves, making sure that they’re there to listen and then make recommendations on pathways, which often leads to a trained TRiM assessor coming in and doing a session...” (ID 27, Fire)

Another issue that arose as a facilitator of mental health engagement is that of easy and timely access to support. Just as not knowing where to find support is likely to be a barrier, being able to self-refer into support and having fast access to available support was seen as a positive.

“people can self-refer to (psychological support). So that’s really, that’s been very helpful” (ID 36, Fire)

“They offer 24/7 assistance if somebody is struggling. So it’s there as soon as they need it” (ID 18, Police)

“Having an in-house wellbeing service is really key. They are proactive, and visible, so people know that they can go to them whenever they need to. I think it’s really changed our culture.” (ID 22, Police)

Difficulty in accessing support services also came up as a key issue in our meetings with stakeholders and was flagged as a potential barrier as part of our internet-based review (see Section 4.3).

RECOMMENDATION

Explore and support evidence-based Continuing Professional Development resources to upskill managers in terms of mental health and wellbeing and help promote senior buy-in and foster a culture of openness and supportiveness around wellbeing issues

6.2 Systematic review findings: help-seeking and support

A number of the findings from the landscape review were also borne out in the academic literature in our systematic review.

Utilisation

From our systematic review, UK police endorsed lower intentions to use mental health services (62%) compared to US (70%), Canadian (77%) and New Zealand (87%) police forces (Ménard et al., 2016). Across the police forces in this study, those with the highest alcohol abuse scores or PTSD scores were less likely to use mental health services. Additionally, men were less likely to seek help in this study compared to females. There was, however, little evidence in the literature regarding ER population level prevalence of help-seeking and utilisation of support/treatment services.

Barriers to seeking help

From UK ER qualitative studies, reported barriers to seeking help for stress or mental health problems included:

- Concerns regarding confidentiality
- Concerns regarding career
- Negative beliefs about effectiveness of services
- Anticipated public stigma of mental health problems/help-seeking
- Masculine culture
- Dissatisfaction with mental health services utilised

Fire personnel reported concerns regarding the confidentiality of seeking help and the subsequent worry they had regarding their career, if a problem was disclosed (Durkin and Bekerian, 2000, Haslam and Mallon, 2003). Of note are repeated concerns regarding the ‘macho’ culture of the police service that encouraged police officers to be detached and dispassionate which subsequently discouraged help-seeking (Evans et al., 2013). Fire personnel also noted that this stigmatising macho culture discouraged help-seeking (Haslam and Mallon, 2003, Hill and Brunnsden, 2009). Police officers reported the greatest barrier to help-seeking was concern that colleagues would have less confidence

in them (Watson and Andrews, 2018). In an international study, UK police reported stigma as their top concern regarding help-seeking. Additionally, UK police reported higher levels of stigma concerns (17%) compared to US (10%), Canada (7%) and New Zealand (7%) with only Australian police reporting higher levels (17%) than the UK police personnel (Ménard et al., 2016).

There are mixed results in academic research regarding the effectiveness of support services utilised. A recent police study found the highest dissatisfaction with support received to be from police with a mental health problem compared to police without a mental health problem (Fielding et al., 2018). In this study, force-based support was reported to be the least helpful with most police seeking help with their General Practitioner. A study of police who experienced in-house counselling found that police personnel often arrived at crisis point because they had not recognised they had a problem and knew little about the counselling process, however once participants had overcome these barriers, they reported positive experiences of counselling that helped them in broader aspects of their wellbeing (Millar, 2002).

There are mixed results on ERs use of social support. Police and fire studies found that participants emphasised the importance of families and social support in coping with the high stress of their work (Duran et al., 2018, Duran et al., 2019). A study of UK coastguard found that those with low levels of social support were more likely to have negative wellbeing and mental health outcomes than coastguard with high social support (Smith, 2012). However, participants from other police and fire studies reported not wanting to burden their families by disclosing their problems (Haslam and Mallon, 2003) and often opted for informal support from colleagues (Roach et al., 2018). One study identified that participants were reluctant to disclose any difficulties with friends, family or colleagues (Evans et al., 2013).

From the Mind Survey (Mind, 2015), the majority of ERs (71%) reported that their organisation did not encourage them to talk about mental health (compared to 45% of the general population); and 44% reported that colleagues would be treated negatively if they disclosed a

mental health problem at work. The vast majority (79%) reported that they would never seek help from HR if they did have a mental health problem; 53% were not aware of the mental health support currently offered by their organisation, and of those who were, almost half thought the quality of the support was poor. A positive finding in the Mind 2015 survey was a desire and demand for more information related to mental health, with almost 1000 participants volunteering to be champions in their own workforce.

A recent international systematic review confirmed the UK findings regarding stigma and barriers to care in ERs. The review found 12 studies measured stigma regarding mental healthcare and 33% of ERs endorsed stigma items as barriers to care. The systematic review revealed that the most frequently endorsed items were fears regarding confidentiality and negative career impact (Haugen et al., 2017). Five studies in the review measured barriers to mental healthcare and 9% of ERs first endorsed barriers to care items. The most frequently endorsed barriers were 'scheduling concerns' and 'not knowing where to get help'. Indications were found for more stigma and barriers to care reported in individuals with mental health problems (Haugen et al., 2017).

From the results obtained, we cannot assess the extent to which ERs seek help or know about support and treatment services. The qualitative work in this field provides a good start on which to build quantitative assessment. We understand that the University of East Anglia are assessing help-seeking and wellbeing support in the ambulance service which will provide much needed evidence in the field.

6.3 Summary

Overall, a number of potential barriers to both implementing and using mental health and wellbeing support initiatives were identified.

Addressing and overcoming these will be crucial in the support of ERs' mental health and wellbeing. The best avenues to achieve this are likely to include:

- ♦ Focusing on strategies to destigmatise mental health issues;
- ♦ Offering psychoeducation to ER managers to encourage a better understanding of wellbeing needs, promote a culture of openness, and achieve top-down buy in for wellbeing support;
- ♦ Facilitating better access to support by increasing visibility of services/initiatives on offer, transparency about what they involve, and simplifying accessibility;
- ♦ Providing support to individuals so that they may be better able to recognise potential mental health issues and needs as they arise.

KEY HIGHLIGHTS

- ♦ Overall, a number of potential barriers were identified in the systematic review and stakeholder interviews in relation to the organisational implementation of support services and ERs' use of mental health and wellbeing support initiatives. Addressing and overcoming these barriers will be crucial in the support of ERs' mental health and wellbeing.
- ♦ Barriers to implementation included limited funding and a mismatch between corporate vision and individual needs. Barriers to engagement included concerns regarding stigma/masculine culture, confidentiality and career advancement.
- ♦ Facilitators of implementation included a culture of openness and buy-in from leadership/management. Facilitators of engagement included the presence of emotionally intelligent managers and allowing self-referrals to services.

Chapter 7

Families: problems and provision

The mental health and wellbeing of family members of ERs is not well understood. From an initial search of the UK literature it was apparent there was very little research conducted regarding the mental health and wellbeing of ER families. We therefore expanded our second systematic review to include international research to ascertain what evidence was available from the wider literature that could inform our understanding of ER families in the UK. These results, together with the outcomes of the landscape review and stakeholder engagement regarding the support initiatives available to ER families, will be discussed below.

7.1 What are the problems? What does the research tell us?

International systematic review findings

The objectives of this systematic review were to investigate the mental health and wellbeing of ER families, including the prevalence of mental health

problems, risk factors, impact of ER occupation on family relationships and family coping mechanisms.

Overall, 62 papers were returned from our systematic review (For search methods see Appendix 6). Out of the 62 papers, 36 provided primary data on ER families, and 30 papers addressed Work-Family-Conflict (WFC) (four had data in both categories). WFC occurs when work demands interfere with family obligations, such as long working hours affecting time for domestic/family activities (Greenhaus and Beutell, 1985). We address WFC data in a separate section below.

Of the 36 papers containing primary family data, 23 reported data collected directly from the families of ERs regarding the mental health and wellbeing of spouses, partners and children and 13 papers reported family data obtained from the ERs themselves (rather than from the spouse/partner or child). Of the 36 papers, 25 papers were quantitative, eight were qualitative and three papers utilised mixed methods. The majority of papers (27) were published in US ER family samples. The papers have been grouped by country of origin, relationship to the ER, and ER population (Table 8).

Table 8 - ER families systematic review papers grouped by country of origin, relationship to the ER, and ER population (excluding WFC papers)

Type of information	Families of Police personnel	Families of Fire Service personnel	Families of EMT/ Ambulance personnel	Mixed emergency responder family studies ¹⁹	Total
United States	17	5	1	4	27
Australia	2	-	1	2	5
Canada	-	1	2	-	3
South Africa	-	-	-	1	1
Total	19	6	4	7	36

Spouses/partners mental health and relationships

The studies included a range of outcomes experienced by ERs and their spouses/partners in terms of the effect on their relationships. Few studies reported specifically on the prevalence of mental health and wellbeing of spouses/partners of ERs, making it difficult to ascertain what their baseline mental health needs are. One Australian police study found 14% of spouses reported probable PTSD and reported distress related to social dysfunction²⁰ and somatic symptoms²¹ (Davidson et al., 2006). Brimhall et al. (2018) found in a US study that 24% of partners and 29% of police officers reported distress in their relationships.

Pressure experienced by spouses/partners

The majority of studies found that spouses felt extreme pressure due to the nature of the ER day-to-day role and its effect on family life. Spouses of US police officers and paramedics reported feeling like it was their sole responsibility to manage the household and children, and often described feeling like a single parent (Roth and Moore, 2009, Brodie and Eppler, 2012, Karaffa et al., 2015). These descriptions of stressors were reported cross-culturally; spanning different countries and across ER services. Negative issues affecting family life such as long working hours, unpredictable shifts, reduction in quality relationship time, lone parenting and family responsibilities not equally shared, were reported in South African spouses with partners in the emergency services and spouses of Canadian paramedics and firefighters (Regehr, 2005, Regehr et al., 2005, Wheeler and Erasmus, 2017). Four studies consistently found that spouses of ERs in the US and Canada were concerned about their loved one and worried about the danger involved in their ER occupations (Regehr, 2005, Regehr et al., 2005, Roth and Moore, 2009, Porter and Henriksen Jr, 2016).

Relationship communication and withdrawal

Ten studies found that communication was key for positive and secure spousal/partner relationships with ERs. For example, a US study of police

spouses found that those who perceived secure attachment with their police partner (feeling connected and secure whilst allowing freedom in relationships), experienced increased mutually constructive communication. Secure attachment perceived by both parties was also associated with increased marital satisfaction (Brimhall et al., 2018). Brimhall et al. (2018) explained that secure attachment minimised stress but required meaningful interactions. They argue that officers and their partners needed to consider therapeutic methods to engage with each other to protect the health of their marriage and reduce emotional withdrawal.

Furthermore, evidence of emotional withdrawal by either party in relationships has been found to negatively affect spouses/partners wellbeing and increase marital tension in ERs (Davidson et al., 2006, King and DeLongis, 2014). There are different factors found in the literature that account for why relationship withdrawal might happen in ER relationships, these include;

- ♦ Withdrawal behaviour associated with PTSD
- ♦ ER/spouse/partner protecting each other from difficult experiences to reduce conflict.
- ♦ Behaviours learnt by ERs in their roles causing withdrawal in relationships (e.g. being unemotional and detached from work)
- ♦ Work stress and ER/spousal withdrawal

In an Australian study, Davidson et al. (2006) found that withdrawal behaviours associated with PTSD (specifically symptoms of avoidance and numbing) in police officers led to psychological disturbance in their partners. This finding is complemented by a qualitative Canadian study where partners of paramedics reported changes in the personality of their paramedic partner where their paramedic partner became closed off and withdrawn as a result of trauma experienced (Regehr, 2005). Bochantin (2016) found that US firefighters withdrew from their spouses/partners emotionally as a way of trying to protect their partner or their family. This finding was replicated in a study of 9/11 firefighters whose partners reported their withdrawal and lack of sharing of their work at ground zero (Menendez et al., 2006). This emotional withdrawal/protective behaviour has been argued to take a huge toll on

the firefighter, in the form of increased emotional labour which also affected relationships negatively (Bochantin, 2016).

Some studies identified that this withdrawal happened as a result of behaviours learnt in police job roles, such as being detached and unemotional. Fourteen percent of US police child abuse investigators reported being more withdrawn in their relationships as a result of their work (Craun et al., 2015). Spouses reported frustrations that their police partners only shared limited information about their daily work (Brodie and Eppler, 2012). Karaffa et al. (2015) found that US police spouses believed that their partners' job caused them to become unemotional and detached.

Work stress was often implicated as a factor hindering relationship communication and promoting withdrawal. Roberts et al. (2013) found that increased job stress decreased police officer's awareness of their spouses negative feelings, whilst spouses concurrently became more attuned to their police partners' hostility, creating poorly functioning communication patterns. King and DeLongis (2014) found that work stress increased symptoms of burnout and rumination amongst Canadian paramedics which then caused spouses to withdraw creating heightened levels of marital tension.

Work stress spillover and spouses/partners subduing their needs

Six studies found that partners of ERs may subdue their own emotional needs to balance the high stress or mental health problems experienced by their ER partner. For example Davidson et al. (2006) found that Australian police who scored highly for hyperarousal had partners who scored low on arousal. Roberts and Levenson (2001) found that on days that police experience high stress, their partners regulated their own emotions to avoid conflict. This study also reported that police job stress created an environment for future marital distress. The authors argue that the influence of job stress (regardless of marital satisfaction, shift work, parenthood etc.) was more toxic for marital interaction than physical exhaustion. In a study of Australian policewomen,

Thompson et al. (2005) found that work stress spilled over into family life through burnout/emotional exhaustion, which decreased family cohesion, whilst at the same time decreasing family conflict (such as family arguments). This decrease in family conflict is argued by the authors to display withdrawal patterns by partners from family interaction to avoid conflict. Police, fire service and ambulance spouses were found to protect their ER partners by not sharing their fears (Karaffa et al., 2015, Bochantin, 2016) and spouses reported feeling the weight of needing to relieve stress in the family (Porter and Henriksen Jr, 2016). Whilst this may reduce marital conflict, it again places a huge emotional burden upon the partner, which may cause withdrawal in the relationship and negatively affect spouses/partners own wellbeing and mental health.

Is there more divorce in ER populations?

A US study of police families from 2000 Census data found that divorce rates were very similar in police families compared to the US national average (14% v 17%) and similar to matched groups of police officers for demographic and income characteristics (14% v 16%) (McCoy and Aamodt, 2010). A US study of firefighters found that male firefighters were more likely to be married than equivalent members of the general public (77% v 58%), whereas the divorce rates were only slightly higher (12% v 9%). For female firefighters, a different pattern was seen. Females were less likely to be currently married (43% v 55%) and more than three times likely to be currently divorced compared to females in the general public (32% v 10%) (Haddock et al., 2016). Overall, we have little evidence to compare divorce outcomes, however we should note that divorce outcomes for ERs could differ according to gender. This suggests that the gender of the ER should be considered in future UK research when assessing how relationship pressures may affect family outcomes.

Intimate partner violence/domestic violence

All studies reporting on intimate partner violence (IPV) and domestic violence (DV) were US police

studies, and all took data from ERs or from case report data. No studies collected data from spouses or partners themselves. Estimates of self-reported physical aggression against a spouse/partner (slapping, punching, injuring, losing control and becoming physically aggressive) ranged from 7% - 10% (Ryan, 2000, Gibson et al., 2001, Anderson and Lo, 2011, Zavala, 2013), and just over 8% for physical aggression against children (Gibson et al., 2001, Zavala, 2013).

Police officers who exhibited 'authoritarian spill over' (authority and command from role as police officer used in domestic setting) were more likely to engage in IPV (Johnson et al., 2005, Anderson and Lo, 2011). These two studies suggested that the policing job role through job stress (Anderson and Lo, 2011) or exposure to violence (Johnson et al., 2005) increased authoritarian spill over which increased the likelihood of IPV. Furthermore, Erwin et al. (2005) found increased case reports of IPV in officers records who worked in high crime precincts, which possibly lends support to the exposure to violence pathway to IPV. Other studies suggested that pre-policing events affect police officers likelihood of IPV. Zavala (2013) found that police officers physically abused in childhood, compared to those who were not, were three times more likely to engage in IPV against their spouse/partner and four times more likely against their child. Gibson et al. (2001) found an association of physical abuse in childhood and IPV. Overall, it was difficult to assess the prevalence of IPV and DV in ER families as little data exists, and that which does exist was mainly taken from perpetrator self-report.

Children of ERs: mental health and wellbeing

All studies assessing the mental health and wellbeing of children in ER families came from the US and most of these studies were focused on outcomes following specific traumatic events, such as the World Trade Center (WTC) Attack and the Boston Marathon bombing.

Comer et al. (2014) found that children who had an ER parent or relative involved in the Boston Marathon bombing manhunt reported an 11%

prevalence rate of probable PTSD which was significantly higher than children who did not have a parent or relative involved in the manhunt who reported a 2% PTSD prevalence rate. Two studies found that children of EMTs who had a WTC role during the terrorist attacks, reported the highest probable PTSD (19% and 15%), followed by children with a police parent (11% and 8% - similar levels to children in studies with no ER family member), and those with a firefighter parent (6% and 3%) (Duarte et al., 2006, Hoven et al., 2009). Some of these differences are accounted for by demographics such as race and ethnicity, with poorer non-white families being over-represented in US EMT populations, however after adjusting for confounding variables, the order of differences in PTSD prevalence remained the same. Duarte et al. (2006) found that if there were two ERs as parents, or in the wider family, then the prevalence of PTSD increased to 17% in children. Additionally, child exposure to the WTC terrorist attacks and family member exposure to the trauma, increased the risk of PTSD and depression in children of ERs. Children of ERs who had direct exposure in the WTC terrorist attacks and had a family member die in the event reported a high probable PTSD rate of 36%.

We can see that levels of child exposure to trauma and the level of trauma their parents or wider family is exposed to, plays a role in child mental health. A third WTC US study confirms that symptomology in police impacted their children's mental health and behavioural difficulties. Uchida et al. (2018) found that police parent dysphoric arousal symptoms (restlessness and agitation) were associated with their children being more fearful and clingy, presenting with more externalising behaviours (physical aggression, disobeying rules, cheating, stealing, and destruction of property) and increased somatic problems (pain, fatigue, emotional distress). The prevalence of child behavioural problems was reported at 20% for police responder children and 32% for non-traditional responder children populations (such as construction workers involved in the WTC site). Uchida et al. (2018) argues that whilst PTSD in police parents has a large impact on their children's health, it may also be that ER

families are more ‘accustomed to coping with trauma’ and therefore experience fewer negative outcomes compared to other families.

Some qualitative studies examined why children of ERs may have an increased risk of adverse mental health and wellbeing outcomes. Menendez et al. (2006) described huge anxiety in children of firefighters involved in the WTC event, in relation to increased concerns for the safety of their ER parent. Many children also attended a large number of funerals for ER families involved in the WTC event, which could have impacted on their wellbeing. In a more general ER context, Bochantin (2016) described the burden of emotional labour taken on by the children of police and fire personnel who often concealed their emotions by putting on a ‘brave’ face, whilst simultaneously being highly concerned for the safety of their ER parent.

Whilst there is little evidence related to the mental health and wellbeing of children of ERs regarding normal day-to-day life, there is growing evidence that children experience their own anxieties about their parents’ safety. There is also evidence that children are at an increased risk of developing PTSD and behavioural problems when an ER parent has PTSD themselves (Uchida et al., 2018). More research is needed to understand whether there are differences across ER branches and whether there are positive aspects of resilience in family functioning within ER families.

Work-Family Conflict (WFC)

Due to the rising tensions between modern day work and family life, research has investigated the concept of work-family conflict (WFC) and family-work conflict (FWC) (Zhang and Liu, 2011). As noted before, WFC occurs when work demands interfere with family obligations (for example, US spouses described incidences of WFC where police officers timetables dominated family life and responders were expected to drop family commitments and work long hours (Karaffa et al., 2015)). However, FWC arises when family life impedes work responsibilities (Gary Howard et al., 2004). As this report focuses on the mental

health and wellbeing of ER families and not on job performance, this section only addresses the studies involving WFC. Specifically, we investigated: The effects of WFC on mental health and wellbeing of ERs and their families; determinants of conflicts between work and family; possible ways of reducing WFC and implications in the UK ER context.

Out of the 30 studies reviewed in this chapter for WFC, four were studies that also addressed other family mental health constructs, and 26 focused solely on WFC. Twenty-eight papers were quantitative, one qualitative and one paper used mixed methods. The country of origin and the ER family populations addressed by these papers are outlined below (Table 9, Table 10).

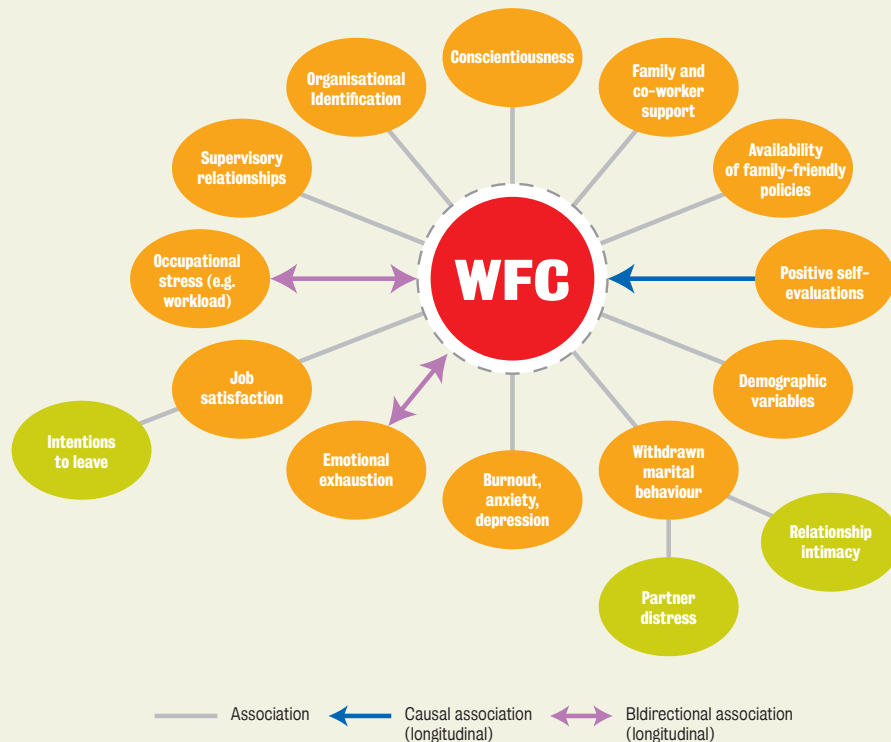
Table 9 – WFC papers by country

Country	Number of studies
USA	10
India	6
Australia	5
Canada	2
South Africa	2
Norway	2
UK	1
The Netherlands	1
Iran	1

Table 10 – WFC papers by ER population

ER Population	Number of studies
Police	20
Fire	6
Ambulance	1
Mixed	3

Figure 14 - WFC Thematic Model Overview



What influences work-family conflict?

Organisational identification

Studies of US firefighters, Iranian paramedics and Indian police officers have suggested that organisational identification, more specifically, a sense of oneness with the organisation, can act as a mitigator of WFC (Allen et al., 2016, Hatam et al., 2016, Qureshi et al., 2019). This relationship was found to be stronger when exposure to trauma was low, for example, firefighters who have experienced a severe traumatic incident were less likely to reap the benefits of strong organisational identification, and more likely to experience higher levels of WFC (Allen et al., 2016).

Occupational stress

Research into Australian volunteer firefighters suggested that occupational stress, specifically operational demands (e.g. demanding shifts) affected job satisfaction and WFC, which in turn influenced intentions to leave (Cowlshaw et al., 2014, Halbesleben, 2009, Shreffler et al., 2011, Singh and Nayak, 2015). A similar study of the same population showed that WFC may mediate the relationship between operational demands and burnout. For example, operational demands may cause increased WFC, which then has a negative effect on ER burnout (Cowlshaw et al., 2010b, Griffin and Sun, 2018). Related to this, a study of Norwegian police identified that job demands and

certain aspects of burnout (emotional exhaustion and cynicism) were strong predictors of WFC, which in turn had negative effects on psychological health (Mikkelsen and Burke, 2004).

Organisational and family support

Australian and US studies of police personnel have found that supervisor-subordinate relationships (organisational support) influenced officers' perceptions of WFC, which increased job satisfaction and decreased intentions to leave (Gary Howard et al., 2004, Brunetto et al., 2010). Co-worker support has also been found to moderate the relationship between WFC and family satisfaction in Indian police personnel, such that increased co-worker support decreased the negative consequences of WFC on family satisfaction (Rathi and Barath, 2013, Singh and Nayak, 2015). Another mitigating factor is family support. One study found that family support reduced the impact of operational stressors on WFC by making up for any lost resources associated with long and demanding shift work (Halbesleben, 2009).

Taken together, these findings suggest that promoting effective supervisor-subordinate and co-worker relationships (i.e. effective leadership), as well as family-friendly policies, and further training opportunities (to reduce operational demands), is a valuable use of resources as these can all act as protective factors for WFC and positively impact (i) ERs mental health; (ii) the desire to remain in the organisation and (iii) family life (Cowlshaw et al., 2014).

Family-friendly interventions

In the US, family-friendly benefits (such as flexible work arrangements, family support services, childcare subsidies) are becoming increasingly popular amongst organisations associated with high levels of WFC. Research found that these benefits were likely to reduce WFC and have been linked to positive organisational commitment, higher job

satisfaction, less absenteeism and a lower intention to leave (Mandeville et al., 2016).

A longitudinal study of US firefighters suggested that misperceived social norms regarding the utilisation of such benefits could lead to situations whereby employees did not use benefits because they perceived their use of the benefits as stigmatising. This in turn had a negative impact on employee WFC, wellbeing, and the organisation as a whole (due to increased absenteeism or intentions to leave) (Mandeville et al., 2016). Social norms differ across countries and organisations, making it crucial to explore this finding in a UK context.

Individual level factors and WFC

Having established several occupational hazards of WFC (e.g. organisational identification, job stress, supervisor support, job satisfaction), the individual differences involved in WFC should be noted. Contrary to job stress, no differences were found in WFC levels between male and female police officers, amongst US, Canadian, and Norwegian samples (He et al., 2002, Burke and Mikkelsen, 2004, Janzen et al., 2007). Having a partner in the same responder occupation was not found to influence WFC; although it was found to have a positive impact on spousal relationships (Burke and Mikkelsen, 2004). Amongst Indian police officers, marital status was found to predict WFC, such that married individuals experienced higher levels of WFC (Qureshi et al., 2016). Additionally, being single and having higher perceived WFC was associated with higher levels of psychological distress amongst Canadian police officers (Janzen et al., 2007).

Furthermore, a US police study found that officers belonging to ethnic minority or higher educational backgrounds tended to report lower levels of WFC (Griffin and Sun, 2018). The reason for this association is unknown and this finding might be limited to the cultural environment of the US. Therefore, research within a UK context is

warranted in order to investigate individual level factors influencing WFC and whether there are individual coping mechanisms and personal skills that could increase people's ability to handle the competing pressures of work and family life.

In terms of personality traits, a South African study of police personnel sought to establish whether there is a relationship between conscientiousness (i.e. the personality trait describing orderly and industrious individuals) and WFC, as well as the effect of these two variables on stress (Roberts et al., 2009). They discovered that high levels of conscientiousness led to lower levels of WFC and that this in turn attenuated family and work stress. Hence higher levels of conscientiousness were able to not only reduce WFC itself, but also able to reduce the impact of WFC on work stress (Bazana and Dodd, 2013). In addition, positive self-evaluations, such as self-esteem and emotional stability, were found to be associated with less WFC (Haines et al., 2013).

Impact of WFC on families

From our systematic review findings, most WFC research does not collect data from ER family members and hence is almost always focused on the outcomes related to ERs and not their families. However, an Australian study collected data from volunteer firefighters and their partners and investigated aspects of 'home life' that were affected by WFC. The results indicated that WFC led to withdrawn marital behaviour (e.g. spending more time on one's own, not sharing feelings with partner). This withdrawn behaviour was then found to have a negative effect on relationship intimacy and partner distress (Cowlshaw et al., 2010a). For responders with children, organisational stress (e.g. working more than 60 hours per week) was found to increase WFC, which heightened parenting stress and reduced parenting satisfaction. In addition, working more than 60 hours per week predicted lower satisfaction with children's behaviour (Shreffler et al., 2011).

Cross-sectional nature of WFC research

Due to the use of cross-sectional surveys, many studies so far have not addressed causality. For example, we know that job stress is related to WFC, but the nature of this relationship has been unclear. In order to bridge this gap, a longitudinal Dutch study of police personnel sought to determine whether workload caused WFC or vice versa. They found a bidirectional causal relationship, such that workload simultaneously acted as a precursor to WFC, and a consequence of WFC (Dijkers et al., 2007). Consistent with this, a longitudinal Australian police study found a causal and reciprocal relationship between job demands, emotional exhaustion and WFC (Hall et al., 2010).

What does the research find regarding family support and coping strategies?

Most studies highlight how crucial informal social support is for ER spouses/partners and families to deal with day-to-day pressures of ER life (Roth and Moore, 2009, Brodie and Eppler, 2012, Karaffa et al., 2015). Shakespeare-Finch et al. (2002) found that Australian ambulance personnel used more varied coping strategies compared to the general population, such that self-care, social support, rational cognitive coping (outlining priorities and seeking information), all have positive impacts on family functioning. Many studies emphasised the positive impact of social support in the aftermath of bereavement in ER families (Pfefferbaum et al., 2002).

Richardson (2016) found over the course of ten years that social support amongst 9/11 firefighter widows played a lasting and enduring role in their recoveries. Sixty percent of the sample still met with other widows ten years later, with 58% agreeing that this informal support helped with their healing. Posttraumatic Growth in this sample was correlated with New York City Fire department sponsored support groups, one-on-one therapy, socialising with other widows and local

support groups. Menendez et al. (2006) found that 9/11 firefighter widows utilised social support from other widows to help them deal with their anxiety, fears and sadness. Other studies have highlighted the positive effect of spiritual beliefs in helping ER families cope with trauma (Karaffa et al., 2015, Menendez et al., 2006) and the use of humour to aid day-to-day coping (Brodie and Eppler, 2012, Bochantin, 2016).

US police spouses/partners, and Canadian paramedic and firefighter spouses/partners all report little or no support for families themselves from their respective departments (Regehr, 2005, Regehr et al., 2005, Karaffa et al., 2015). Study authors highlighted that programmes should be put in place to support family social support and networks, especially in cases where families were isolated due to government cuts or rationalisation of services.

Positive outcomes

Whilst investigation of positive aspects of being part of an ER family is limited, some studies have broached this topic. These studies highlighted the pride that spouses/partners and children of ERs felt as part of a responder family and pride felt at the positive impact that their family member had on the community (Karaffa et al., 2015, Porter and Henriksen Jr, 2016, Wheeler and Erasmus, 2017). Police spouses in Brodie and Eppler (2012) described the benefits of the police career choice such as camaraderie, helping others, pride felt in the job, financial security and health insurance benefits. Some studies also remarked, that despite the huge pressures faced by ER families, they often presented as highly resilient and functioning (Roth and Moore, 2009, Richardson, 2016, Uchida et al., 2018)

7.2 What is the current provision for support of ER families in the UK?

From the research we can see how the nature of ER roles can impact the wellbeing of their families and partners, therefore it is important to get a sense of how well families of ERs are supported in the UK. The interviews conducted as part of the landscape review highlighted family support as a major gap in provision across the emergency and volunteer services, with many interviewees explicitly stating that this is an area that would benefit from more support.

“One of the things we know we are not good at is actually dealing with family... that’s one of the things I think in the wellbeing working group we identified as a big gap” (ID 26, Coastguard)

“I think everybody who volunteers recognises there’s a huge impact on family, but we haven’t maybe been as good at supporting the families as we could be” (ID 33, Mountain Rescue)

Furthermore, interviewees were asked whether or not their services offered support to families. While 15% were unable to answer the question, 33% said their EAP extended to families (although children were rarely included; with only one interviewee saying their EAP provision extended to those under the age of 16 years), and an additional 27% said that they offered some form of limited support to the families, for example, offering information booklets, or signposting phonelines. However, it is worth noting that even when EAPs did include family support, this was often limited to their signposting services, rather than providing actual support services (such as counselling). Extending provision to include face-to-face support was rare, and usually dealt with on a case-by-case basis, with notable exceptions after particularly traumatic events, in which case

families were often included as part of the post-incident care strategies.

This finding was supported by the internet-based review, which found that information about service-based support for families was scarce, but again, where support was available it was provided by EAP's (e.g. East of England Ambulance, Shropshire and West Yorkshire Fire Service and nine police forces offer family support in this way). The searches also identified several socially oriented initiatives linking good mental health and wellbeing support to staff and their families. For example, Devon and Cornwall Ambulance run a 'Surfwell' group open to all, where people can meet on the beach, surf and socialise.

The internet searches showed that it was the charity sector that primarily supported families. The not-for-profit sites that were identified as part of the review regularly mentioned that their support and services extended to families of ERs. There were also a number of charities whose target audience was exclusively ER families, for example Winston's Wish supports bereaved children and the families of police officers who have lost their lives on duty. Fire service affiliated charities additionally tend to offer their services to family.

A point to note from the landscape review was that overall it was relatively difficult to find publicly available information about the family support that was available through internet searches alone, suggesting families may find it difficult to locate support information unless they are ERs themselves. Thus, there is a need to make the support to families more visible.

7.3 Conclusions, gaps and recommendations

Overall, the evidence describes stressors experienced by the spouses and families of ERs. Studies have found WFC is associated with several negative mental health and wellbeing outcomes for ERs, such as anxiety, depression, burnout, occupational stress, job satisfaction, and intentions to leave (He et al., 2002, Mikkelsen and Burke, 2004, Griffin et al., 2008, Cowlshaw et al., 2010a, Kamuju, 2015, Lambert et al., 2017). There is additional evidence that mental health problems in the ER may impact the wellbeing of the spouse or partner (Davidson et al., 2006). There is some evidence that children with an ER parent may be affected by their ER parents' PTSD (or their involvement in traumatic events) (Uchida et al., 2018), and that children may have general anxiety about their ER parent's job role and dangers experienced (Bochantin, 2016).

As only a single UK study emerged in the systematic search (Willis et al., 2008), it is clear that further ER family research in a UK context is needed. We do not understand what the problems are in ER families and therefore what their main needs of support are. Future research should collect data from families themselves. The landscape review found limited support for families and available support was not always easy to identify and access. It is clear from the research on ERs that policy makers need to explore ways of increasing organisational commitment and decreasing

occupational stress, as this will decrease WFC. Strengthening effective leadership, social support, and the availability of family-friendly policies will all serve to protect the mental health and wellbeing of ERs and their families.

KEY HIGHLIGHTS

- ♦ Only one UK study fitted the search criteria in the ER family systematic review.
- ♦ International research identified pressures on ER spouses and children, such as the impact of shift work, lone parenting, concerns for ER safety and ER work stress/trauma that negatively affected spouse's and children's psychological wellbeing and family functioning.
- ♦ UK research does not assess what the potential problems or positive mental health and wellbeing outcomes are in ER families and therefore there is little understanding of their support needs.
- ♦ It was clear from the landscape review that there was limited support for families of ERs, and that this was an area where more work was needed.

RECOMMENDATION

ER family research should focus on obtaining data from spouses/partners and children themselves and should address gaps in UK knowledge including: prevalence of mental health and wellbeing problems of ER spouses/partners and children, work-family conflict, relationship pressures, domestic/intimate personal violence, family resilience/coping strategies and positive outcomes.

RECOMMENDATION

Work with sector to see how the mental health and wellbeing needs of ER families could be better understood and supported. There is a need to provide a space to share best practice between and within emergency services in the UK but, also, to highlight better practice models used in other countries (e.g., Canada, Australia, New Zealand).

RECOMMENDATION

Help to make the available support for families (whether through charities and other organisations) more visible and accessible, perhaps through the creation of an online gateway that can facilitate access to relevant support.

Chapter 8

Summary of recommendations: definition, research, practice

In line with the project research questions, our recommendations are summarised as follows:

Definition

- The use of the term 'Emergency Responder' is suggested to be most beneficial when discussing mental health and wellbeing research, support and service provision across the branches of police, fire,

ambulance and other ER volunteer services. The term presents a more meaningful, useful, expansive and inclusive term understood by individuals working in these services.

Research

- ♦ The sector could benefit from the creation of a 'Research Consortium' where researchers can utilise shared resources in aligning research measures, can make connections and can share their research ideas. This is likely to increase collaboration, research grant funding success, and decrease duplication of work.
- ♦ There is a need for support to facilitate meetings of researchers and practitioners (e.g. through symposia and conferences) to encourage translational research in this area, including development of relationships with international researchers and institutions to share and extend knowledge and innovation.
- ♦ There are many ER health and wellbeing areas with little or no research. Future work should focus on these research gaps, these include: self-harm, suicide ideation, suicide attempts and completed suicide, secondary traumatic stress, alcohol and substance misuse, shift work and sleep, workplace bullying and discrimination, finance and debt, and positive outcomes.
- ♦ Future research should focus attention on specific groups less studied including retirees, call operators, BME, LGBTQ, volunteers, search and rescue, high risk roles and more broadly ambulance and fire personnel.
- ♦ Research and support should assess organisational stressors and broader mental health and wellbeing outcomes, in addition to trauma and PTSD, to ensure research and support is reflective of ERs' experiences.
- ♦ ER family research should focus on obtaining data from spouses/partners and children themselves and should address gaps in UK knowledge including: prevalence of mental health and wellbeing problems of ER spouses/partners and children, work-family conflict, relationship pressures, domestic/intimate personal violence, family resilience/coping strategies and positive outcomes.
- ♦ Methodologically, in ER academic research there is a need for:
 - a) Alignment across ER studies regarding use of evidence-based, validated mental health measures that are similar to allow for comparisons across studies.
 - b) Representative samples assessing prevalence of mental health and wellbeing in ERs.
 - c) Longitudinal studies that measure mental health and wellbeing over time to provide causal evidence and indication of long-term trends.
- ♦ Need to conduct research specifically focused on intervention evaluations, eHealth, and service utilisation. It may be particularly beneficial to focus on assessing interventions that fill gaps in provision.

Practice

- ♦ Explore and support evidence-based Continuing Professional Development resources, to upskill managers in terms of mental health and wellbeing and help promote senior buy-in and foster a culture of openness and supportiveness around wellbeing issues.
- ♦ Promote and extend support for mental health/ wellbeing ‘champions’ and help promote peer support within ER organisations.
- ♦ Support destigmatising strategies within ER organisations, for example, through the continuation of mental health champions or by creating online video resources where ERs who have experienced mental health issues can share their stories.
- ♦ Promote sharing of ‘better practice’ across the sector, for example, by encouraging cross-collaboration and the showcasing of effective wellbeing frameworks and initiatives.
- ♦ Encourage collaboration between the charities in provision of support and create better signposting to the charities to support potential users.
- ♦ Facilitate better access to mental health and wellbeing support through the creation of a ‘Universal Gateway’ website (analogous to the Veterans’ Gateway; or <https://www.cipsrt-icrtsp.ca/>) or a tool that will aid ERs to navigate support options (including charitable provision), increase visibility of services, enable routes into care pathways and provide online self-assessment to increase recognition of potential mental health and wellbeing problems.
- ♦ Explore and examine effective models of suicide prevention with the ER sector to enable consistent implementation of evidenced-based suicide prevention models.
- ♦ Future support should assess the mental health and wellbeing needs of volunteer roles and examine specific support needs of call operators and high-risk roles such as those exposed to trauma or isolation (e.g. those lone working or analysts working in child abuse/exploitation).
- ♦ The ER sector should examine what support can be offered to volunteer ERs by promoting cross-service collaboration and facilitating relationship building across the emergency services sector.
- ♦ There is a need to better understand the mental health and wellbeing needs of retirees specifically around transition, retirement and post-service employment/career advice, and explore appropriate future provision of support to enable successful transitions out of ER roles.
- ♦ Explore current available resources to facilitate organisations to carry out standardised, context- specific evaluations of their mental health/ wellbeing support services to enable better outcome measurement and feedback to improve support services.
- ♦ Work with sector to see how the mental health and wellbeing needs of ER families could be better understood and supported. There is a need to provide a space to share best practice between and within emergency services in the UK but, also, to highlight better practice models used in other countries (e.g., Canada, Australia, New Zealand).
- ♦ Help to make the available support for families (whether through charities and other organisations) more visible and accessible, perhaps through the creation of an online gateway that can facilitate access to relevant support.



References

- ADAMS, G. A. & BUCK, J. 2010. *Social stressors and strain among police officers: It's not just the bad guys*. *Criminal Justice and Behavior*, 37, 1030-1040.
- ADEBAYO, S. O. & OGUNSINA, S. 2011. *Influence of supervisory behaviour and job stress on job satisfaction and turnover intention of police personnel in Ekiti State*. *Journal of Management and Strategy*, 2, 13.
- AISLING, M., AISLING, D. & DAVID, C. 2016. *An Assessment of Psychological Need in Emergency Medical Staff in the Northern Health and Social Care Trust Area*. *The Ulster medical journal*, 85, 92-8.
- ALEXANDER, D. A. & KLEIN, S. 2001. *Ambulance personnel and critical incidents: impact of accident and emergency work on mental health and emotional well-being*. *The British Journal of Psychiatry*, 178, 76-81.
- ALLEN, J. A., CROWE, J., BARAN, B. E. & SCOTT, C. 2016. *Organizational identification: A context-specific mitigating resource of work-family conflict*. *Journal of Contingencies and Crisis Management*, 24, 27-35.
- ANDERSON, A. S. & LO, C. C. 2011. *Intimate partner violence within law enforcement families*. *Journal of Interpersonal Violence*, 26, 1176-1193.
- ASMUNDSON, G. J. & STAPLETON, J. A. 2008. *Associations between dimensions of anxiety sensitivity and PTSD symptom clusters in active duty police officers*. *Cognitive behaviour therapy*, 37, 66-75.
- BACHARACH, S. & BAMBERGER, P. 2007. *Organizational context and post-event distress: 9/11 and the New York City Firefighters*. *Academy of Management Journal*, 50, 849-868.
- BACHARACH, S. B., BAMBERGER, P. A. & DOVEH, E. 2008. *Firefighters, critical incidents, and drinking to cope: The adequacy of unit-level performance resources as a source of vulnerability and protection*. *Journal of Applied Psychology*, 93, 155.
- BAKER, S. R. & WILLIAMS, K. 2001. *Short communication: relation between social problem-solving appraisals, work stress and psychological distress in male firefighters*. *Stress and Health*, 17, 219-229.
- BALLENGER, J. F., BEST, S. R., METZLER, T. J., WASSERMAN, D. A., MOHR, D. C., LIBERMAN, A., DELUCCHI, K., WEISS, D. S., FAGAN, J. A. & WALDROP, A. E. 2011. *Patterns and predictors of alcohol use in male and female urban police officers*. *The American Journal on Addictions*, 20, 21-29.
- BARAK, A., HEN, L., BONIEL-NISSIM, M. & SHAPIRA, N. A. 2008. *A comprehensive review and a meta-analysis of the effectiveness of internet-based psychotherapeutic interventions*. *Journal of Technology in Human services*, 26, 109-160.
- BARKER, S. B., KNISELY, J. S., MCCAIN, N. L. & BEST, A. M. 2005. *Measuring stress and immune response in healthcare professionals following interaction with a therapy dog: A pilot study*. *Psychological reports*, 96, 713-729.
- BAZANA, S. & DODD, N. 2013. *Conscientiousness, work family conflict and stress amongst police officers in Alice, South Africa*. *Journal of Psychology*, 4, 1-8.
- BEAUMONT, E., DURKIN, M., MCANDREW, S. & MARTIN, C. R. 2016. *Using Compassion Focused Therapy as an adjunct to Trauma-Focused CBT for Fire Service personnel suffering with trauma-related symptoms*. *The Cognitive Behaviour Therapist*, 9.
- BECK, A. T., STEER, R. A. & CARBIN, M. G. 1988. *Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation*. *Clinical psychology review*, 8, 77-100.
- BEHNKE, A., ROJAS, R., KARRASCH, S., HITZLER, M. & KOLASSA, I.-T. 2019. *Deconstructing traumatic mission experiences: Identifying critical incidents and their relevance for the mental and physical health among emergency medical service personnel*. *Frontiers in Psychology*, 10, 2305.
- BENNETT, P., WILLIAMS, Y., PAGE, N., HOOD, K. & WOOLLARD, M. 2004. *Levels of mental health problems among UK emergency ambulance workers*. *Emergency Medicine Journal*, 21, 235-236.
- BENNETT, P., WILLIAMS, Y., PAGE, N., HOOD, K., WOOLLARD, M. & VETTER, N. 2005. *Associations between organizational and incident factors and emotional distress in emergency ambulance personnel*. *British journal of clinical psychology*, 44, 215-226.

- BERG, A. M., HEM, E., LAU, B., LOEB, M. & EKEBERG, O. 2003. *Suicidal ideation and attempts in Norwegian police*. *Suicide and Life-Threatening Behavior*, 33, 302-312.
- BERNINGER, A., WEBBER, M. P., NILES, J. K., GUSTAVE, J., LEE, R., COHEN, H. W., KELLY, K., CORRIGAN, M. & PREZANT, D. J. 2010. *Longitudinal study of probable post traumatic stress disorder in firefighters exposed to the World Trade Center disaster*. *American Journal of Industrial Medicine*, 53, 1177-1185.
- BLACK, A., MCCABE, D. & MCCONNELL, N. 2013. *Ten years on, living with the 'psychological troubles': Retired police officers in Northern Ireland*. *The Irish Journal of Psychology*, 34, 93-108.
- BOAG-MUNROE, F. 2019. *Pay and Morale Survey 2019, Headline Statistics October 2019*. Police Federation of England and Wales.
- BOAG-MUNROE, F., DONNELLY, J., VAN MECHELEN, D. & ELLIOTT-DAVIES, M. 2017. *Police officers' promotion prospects and intention to leave the police*. *Policing: A Journal of Policy and Practice*, 11, 132-145.
- BOCHANTIN, J. E. 2016. *"Morning fog, spider webs, and escaping from Alcatraz": Examining metaphors used by public safety employees and their families to help understand the relationship between work and family*. *Communication Monographs*, 83, 214-238.
- BOFFA, J. W., STANLEY, I. H., HOM, M. A., NORR, A. M., JOINER, T. E. & SCHMIDT, N. B. *PTSD symptoms and suicidal thoughts and behaviors among firefighters*. *Journal of Psychiatric Research*, 84, 277-283.
- BOURKE, M. L. & CRAUN, S. W. 2014a. *Coping with secondary traumatic stress: differences between U.K. and U.S. child exploitation personnel*. *Traumatology*, 20, 57-64.
- BOURKE, M. L. & CRAUN, S. W. 2014b. *Secondary traumatic stress among internet crimes against children task force personnel: impact, risk factors, and coping strategies*. *Sexual Abuse: A Journal of Research and Treatment*, 26, 586-609.
- BRAZIL, A. 2017. *Exploring Critical Incidents and Postexposure Management in a Volunteer Fire Service*. *Journal of Aggression, Maltreatment & Trauma*, 26, 244-257.
- BREWIN, C. R., ROSE, S., ANDREWS, B., GREEN, J., TATA, P., MCEVEDY, C., TURNER, S. & FOA, E. B. 2002. *Brief screening instrument for post-traumatic stress disorder*. *The British Journal of Psychiatry*, 181, 158-162.
- BRIDE, B. E., ROBINSON, M. M., YEGIDIS, B. & FIGLEY, C. R. 2004. *Development and validation of the secondary traumatic stress scale*. *Research on social work practice*, 14, 27-35.
- BRIMHALL, A. S., BONNER, H. S., TYNDALL, L. & JENSEN, J. F. 2018. *ARE You There for Me? The Relationship Between Attachment, Communication, and Relationship Satisfaction of Law Enforcement Officers and Their Partners*. *Journal of Couple & Relationship Therapy*, 17, 338-361.
- BRODIE, P. J. & EPPLER, C. 2012. *Exploration of perceived stressors, communication, and resilience in law-enforcement couples*. *Journal of Family Psychotherapy*, 23, 20-41.
- BROUGH, P., CHATAWAY, S. & BIGGS, A. 2016. *'You don't want people knowing you're a copper!' A contemporary assessment of police organisational culture*. *International Journal of Police Science & Management*, 18, 28-36.
- BROUGH, P. & FRAME, R. 2004. *Predicting police job satisfaction and turnover intentions: The role of social support and police organisational variables*. *New Zealand journal of psychology*, 33, 8-18.
- BROWN, J., MULHERN, G. & JOSEPH, S. 2002. *Incident-related stressors, locus of control, coping, and psychological distress among firefighters in Northern Ireland*. *Journal of traumatic stress*, 15, 161-168.
- BRUNETTO, Y., FARR-WHARTON, R., RAMSAY, S. & SHACKLOCK, K. 2010. *Supervisor relationships and perceptions of work-family conflict*. *Asia Pacific Journal of Human Resources*, 48, 212-232.
- BURKE, R. J. & MIKKELSEN, A. 2004. *Benefits to Police Officers of Having a Spouse or Partner in the Profession of Police Officer*. *Psychological Reports*, 95, 514-516.
- BURKE, R. J. & MIKKELSEN, A. 2007. *Suicidal ideation among police officers in Norway*. *Policing: An International Journal of Police Strategies & Management*, 30, 228-236.
- CAMERON, T. M. & GRIFFITHS, A. 2017. *The Impact of Involuntary Retirement on Senior Police Officers*. *Policing-a Journal of Policy and Practice*, 11, 52-61.
- CAPUTO, L. M., SALOTTOLO, K. M., GOSCHE, E. E., HAWKES, A. P., VELLMAN, P. W., LANGE, N. R., CONIGLIO, R. & MAINS, C. W. 2015. *The impact of changing work schedules on American firefighters' sleep patterns and well-being*. *Signa vitae: journal for intensive care and emergency medicine*, 10, 25-37.
- CAREY, M. G., AL-ZAITI, S. S., DEAN, G. E., SESSANNA, L. & FINNELL, D. S. 2011. *Sleep problems, depression, substance use, social bonding, and quality of life in professional firefighters*. *Journal of occupational and environmental medicine/American College of Occupational and Environmental Medicine*, 53, 928.
- CARLETON, R. N., AFIFI, T. O., TURNER, S., TAILLIEU, T., DURANCEAU, S., LEBOUTHILLIER, D. M., SAREEN, J., RICCIARDELLI, R., MACPHEE, R. S. & GROLL, D. 2018. *Mental disorder symptoms among public safety personnel in Canada*. *The Canadian Journal of Psychiatry*, 63, 54-64.
- CARPENTER, G. S. J., CARPENTER, T. P., KIMBREL, N. A., FLYNN, E. J., PENNINGTON, M. L., CAMMARATA, C., ZIMERING, R. T., KAMHOLZ, B. W. & GULLIVER, S. B. 2015. *Social support, stress, and suicidal ideation in professional firefighters*. *American journal of health behavior*, 39, 191-196.

- CARSON, D. 2009. *Mentoring for Women in Policing in the UK*. International Journal of Evidence Based Coaching and Mentoring, 3, 51-63.
- CHEN, Y.-S., CHEN, M.-C., CHOU, F. H.-C., SUN, F.-C., CHEN, P.-C., TSAI, K.-Y. & CHAO, S.-S. 2007. *The relationship between quality of life and posttraumatic stress disorder or major depression for firefighters in Kaohsiung, Taiwan*. Quality of life research, 16, 1289-1297.
- CHOPKO, B. A. 2010. *Posttraumatic distress and growth: An empirical study of police officers*. American journal of psychotherapy, 64, 55-72.
- CHOPKO, B. A., PALMIERI, P. A. & ADAMS, R. E. *Relationships among traumatic experiences, PTSD, and posttraumatic growth for police officers: A path analysis*. Psychological Trauma: Theory, Research, Practice and Policy, 10, 183-189.
- CLARKE, S. 2012. *The effect of challenge and hindrance stressors on safety behavior and safety outcomes: A meta-analysis*. Journal of occupational health psychology, 17, 387.
- CLOITRE, M., SHEVLIN, M., BREWIN, C. R., BISSON, J. I., ROBERTS, N. P., MAERCKER, A., KARATZIAS, T. & HYLAND, P. 2018. *The International Trauma Questionnaire: development of a self-report measure of ICD 11 PTSD and complex PTSD*. Acta Psychiatrica Scandinavica, 138, 536-546.
- COLLINS, P. & GIBBS, A. 2003. *Stress in police officers: a study of the origins, prevalence and severity of stress related symptoms within a county police force*. Occupational medicine, 53, 256-264.
- COMER, J. S., KERNS, C. E., ELKINS, R. M., EDSON, A. L., CHOU, T., DANTOWITZ, A., MIGUEL, E., BROWN, B., COXE, S. & GREEN, J. G. 2014. *Adjustment among children with relatives who participated in the manhunt following the Boston Marathon attack*. Depression and anxiety, 31, 542-550.
- COWLISHAW, S., BIRCH, A., MCLENNAN, J. & HAYES, P. 2014. *Antecedents and outcomes of volunteer work-family conflict and facilitation in Australia*. Applied Psychology: An International Review, 63, 168-189.
- COWLISHAW, S., EVANS, L. & MCLENNAN, J. 2010a. *Balance between volunteer work and family roles: Testing a theoretical model of work-family conflict in the volunteer emergency services*. Australian Journal of Psychology, 62, 169-178.
- COWLISHAW, S., EVANS, L. & MCLENNAN, J. 2010b. *Work-family conflict and crossover in volunteer emergency service workers*. Work & Stress, 24, 342-358.
- COWMAN, S. E., FERRARI, J. R. & LIAO TROTH, M. 2004. *Mediating effects of social support on firefighters' sense of community and perceptions of care*. Journal of Community Psychology, 32, 121-126.
- COXON, A., CROPLEY, M., SCHOFIELD, P., START, K., HORSFIELD, C. & QUINN, T. 2016. *'You're never making just one decision': exploring the lived experiences of ambulance Emergency Operations Centre personnel*. Emerg Med J, 33, 645-651.
- CRAUN, S. W., BOURKE, M. L. & COULSON, F. N. 2015. *The impact of internet crimes against children work on relationships with families and friends: an exploratory study*. Journal of Family Violence, 30, 393-402.
- CUIJPERS, P., MARKS, I. M., VAN STRATEN, A., CAVANAGH, K., GEGA, L. & ANDERSSON, G. 2009. *Computer aided psychotherapy for anxiety disorders: A meta analytic review*. Cognitive behaviour therapy, 38, 66-82.
- DARENSBURG, T., ANDREW, M. E., HARTLEY, T. A., BURCHFIEL, C. M., FEKEDULEGN, D. & VIOLANTI, J. M. 2006. *Gender and age differences in posttraumatic stress disorder and depression among Buffalo police officers*. Traumatology, 12, 220-228.
- DAVIDSON, A. C., BERAH, E. & MOSS, S. 2006. *The relationship between the adjustment of Australian police officers and their partners*. Psychiatry, Psychology and law, 13, 41-48.
- DAVIDSON, T., MORELAND, A., BUNNELL, B. E., WINKELMANN, J., HAMBLEN, J. L. & RUGGIERO, K. J. 2018. *Reducing stigma in mental health through digital storytelling*. Deconstructing stigma in mental health. IGI Global.
- DE VECCHI, N., KENNY, A., DICKSON-SWIFT, V. & KIDD, S. 2017. *Exploring the process of digital storytelling in mental health research: A process evaluation of consumer and clinician experiences*. International Journal of Qualitative Methods, 16, 1609406917729291.
- DEL BEN, K. S., SCOTTI, J. R., CHEN, Y.-C. & FORTSON, B. L. 2006. *Prevalence of posttraumatic stress disorder symptoms in firefighters*. Work & Stress, 20, 37-48.
- DESTA FEKEDULEGN, D., BURCHFIEL, C. M., CHARLES, L. E., HARTLEY, T. A., ANDREW, M. E. & VIOLANTI, J. M. 2016. *Shift work and sleep quality among urban police officers: the BCOPS study*. Journal of occupational and environmental medicine/American College of Occupational and Environmental Medicine, 58, e66.
- DICK, P. 2010. *The transition to motherhood and part-time working: mutuality and incongruence in the psychological contracts existing between managers and employees*. Work, employment and society, 24, 508-525.
- DICK, P. 2015. *To see ourselves as others see us? Incorporating the constraining role of socio-cultural practices in the theorization of micropolitical resistance*. Gender, Work & Organization, 22, 16-35.
- DIKKERS, J. S., GEURTS, S. A., KOMPIER, M. A., TARIS, T. W., HOUTMAN, I. L. & VAN DEN HEUVEL, F. 2007. *Does workload cause work-home interference or is it the other way around? Stress and Health: Journal of the International Society for the Investigation of Stress*, 23, 303-314.

- DOWLER, K. & ARAI, B. 2008. *Stress, gender and policing: The impact of perceived gender discrimination on symptoms of stress*. *International Journal of Police Science & Management*, 10, 123-135.
- DRURY, J., KEMP, V., NEWMAN, J., NOVELLI, D., DOYLE, C., WALTER, D. & WILLIAMS, R. 2013. *Psychosocial care for persons affected by emergencies and major incidents: a Delphi study to determine the needs of professional first responders for education, training and support*. *Emerg Med J*, 30, 831-836.
- DUARTE, C. S., HOVEN, C. W., WU, P., BIN, F., COTEL, S., MANDELL, D. J., NAGASAWA, M., BALABAN, V., WERNIKOFF, L. & MARKENSON, D. 2006. *Posttraumatic stress in children with first responders in their families*. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies*, 19, 301-306.
- DUNLEAVY, K., TAYLOR, A., GOW, J., CULLEN, B. & ROY, K. 2012. *Police officer anxiety after occupational blood and body fluid exposure*. *Occupational Medicine-Oxford*, 62, 382-384.
- DURAN, F., WOODHAMS, J. & BISHOPP, D. 2018. *An interview study of the experiences of firefighters in regard to psychological contract and stressors*. *Employee Responsibilities and Rights Journal*, 30, 203-226.
- DURAN, F., WOODHAMS, J. & BISHOPP, D. 2019. *An interview study of the experiences of police officers in regard to psychological contract and wellbeing*. *Journal of Police and Criminal Psychology*, 34, 184-198.
- DURKIN, J. & BEKERIAN, D. 2000. *Psychological resilience to stress in firefighters*. University of London, UK, 3-6.
- ERWIN, M. J., GERSHON, R. R., TIBURZI, M. & LIN, S. 2005. *Reports of intimate partner violence made against police officers*. *Journal of Family Violence*, 20, 13-19.
- EVANS, R., PISTRANG, N. & BILLINGS, J. 2013. *Police officers' experiences of supportive and unsupportive social interactions following traumatic incidents*. *European Journal of psychotraumatology*, 4, 19696.
- FALSETTI, S. A., RESNICK, H. S., RESICK, P. A. & KILPATRICK, D. G. 1993. *The modified PTSD symptom scale: a brief self-report measure of posttraumatic stress disorder*. *The Behavior Therapist*.
- FIELDING, N. G., BULLOCK, K., FIELDING, J. L. & HIEKE, G. 2018. *Patterns of injury on duty and perceptions of support amongst serving police personnel in England and Wales*. *Policing and society*, 28, 1005-1024.
- FIGLEY, C. R. 1995. *Compassion fatigue: Toward a new understanding of the costs of caring*.
- FIGLEY, C. R. 1999. *Police compassion fatigue (PCF): Theory, research, assessment, treatment, and prevention*.
- FIGLEY, C. R. 2013. *Compassion fatigue: Coping with secondary traumatic stress disorder in those who treat the traumatized*. Routledge.
- FINN, P., TALUCCI, V. & WOOD, J. 2000. *On-the-job-stress in policing: Reducing it and preventing it*. *National Institute of Justice Journal*, 242, 18-24.
- FITZHUGH, H., MICHAELIDES, G., CONNOLLY, S. & DANIELS, K. 2019. *Mindfulness in policing*.
- FOA, E. B., CASHMAN, L., JAYCOX, L. & PERRY, K. 1997. *The validation of a self-report measure of posttraumatic stress disorder: the Posttraumatic Diagnostic Scale*. *Psychological assessment*, 9, 445.
- FOA, E. B., RIGGS, D. S., DANCU, C. V. & ROTHBAUM, B. O. 1993. *Reliability and validity of a brief instrument for assessing post traumatic stress disorder*. *Journal of traumatic stress*, 6, 459-473.
- GARBARINO, S., CUOMO, G., CHIORRI, C. & MAGNAVITA, N. 2013. *Association of work-related stress with mental health problems in a special police force unit*. *BMJ open*, 3, e002791.
- GARY HOWARD, W., HOWARD DONOFRIO, H. & BOLES, J. S. 2004. *Inter-domain work-family, family-work conflict and police work satisfaction*. *Policing: An International Journal of Police Strategies & Management*, 27, 380-395.
- GERONAZZO-ALMAN, L., EISENBERG, R., SHEN, S., DUARTE, C. S., MUSA, G. J., WICKS, J., FAN, B., DOAN, T., GUFFANTI, G., BRESNAHAN, M. & HOVEN, C. W. 2017. *Cumulative exposure to work-related traumatic events and current post-traumatic stress disorder in New York City's first responders*. *Comprehensive Psychiatry*, 74, 134-143.
- GERSHON, R. R., BAROCAS, B., CANTON, A. N., LI, X. & VLAHOV, D. 2009. *Mental, physical, and behavioral outcomes associated with perceived work stress in police officers*. *Criminal Justice and Behavior*, 36, 275-289.
- GIBSON, C. L., SWATT, M. L. & JOLICOEUR, J. R. 2001. *Assessing the generality of general strain theory: The relationship among occupational stress experienced by male police officers and domestic forms of violence*. *Journal of Crime and Justice*, 24, 29-57.
- GOLDBERG, D. 1978. *Manual of the general health questionnaire*. Nfer Nelson.
- GONZALEZ, A., RASUL, R., MOLINA, L., SCHNEIDER, S., BEVILACQUA, K., BROMET, E. J., LUFT, B. J., TAIOLI, E. & SCHWARTZ, R. 2019. *Differential effect of Hurricane Sandy exposure on PTSD symptom severity: comparison of community members and responders*. *Occupational and environmental medicine*.
- GREEN, B. 2004. *Post-traumatic stress disorder in UK police officers*. *Current medical research and opinion*, 20, 101-105.

- GREENBERG, N. 2001. *A Critical Review of Psychological Debriefing and a Proposal for the future*. JR Nav Med Serv, 87, 158-61.
- GREENBERG, N., LANGSTON, V., IVERSEN, A. & WESSELY, S. 2011. *The acceptability of 'trauma risk management' within the UK Armed Forces*. Occupational medicine, 61, 184-189.
- GREENHAUS, J. H. & BEUTELL, N. J. 1985. *Sources of conflict between work and family roles*. Academy of management review, 10, 76-88.
- GREINACHER, A., DEREZZA-GREEVEN, C., HERZOG, W. & NIKENDEI, C. 2019. *Secondary traumatization in first responders: a systematic review*. European journal of psychotraumatology, 10, 1562840.
- GRIFFIN, J. D. & SUN, I. Y. 2018. *Do Work-Family Conflict and Resiliency Mediate Police Stress and Burnout: a Study of State Police Officers*. American Journal of Criminal Justice, 43, 354-370.
- GRIFFIN, S. F., WILSON, D. K., WILCOX, S., BUCK, J. & AINSWORTH, B. E. 2008. *Physical activity influences in a disadvantaged African American community and the communities' proposed solutions*. Health Promotion Practice, 9, 180-190.
- GRIFFITHS, K. M. & CHRISTENSEN, H. 2006. *Review of randomised controlled trials of Internet interventions for mental disorders and related conditions*. Clinical Psychologist, 10, 16-29.
- HADDOCK, C. K., JAHNKE, S. A., POSTON, W. S. C., JITNARIN, N. & DAY, R. S. 2016. *Marriage and divorce among firefighters in the United States*. Journal of Family Issues, 37, 2294-2308.
- HAINES, V. Y., III, HARVEY, S., DURAND, P. & MARCHAND, A. 2013. *Core self-evaluations, work-family conflict, and burnout*. Journal of Marriage and Family, 75, 778-793.
- HALBESLEBEN, J. R. B. 2009. *The influence of shift work on emotional exhaustion in firefighters: The role of work-family conflict and social support*. International Journal of Workplace Health Management, 2, 115-130.
- HALL, G. B., DOLLARD, M. F., TUCKEY, M. R., WINEFIELD, A. H. & THOMPSON, B. M. 2010. *Job demands, work-family conflict, and emotional exhaustion in police officers: A longitudinal test of competing theories*. Journal of Occupational and Organizational Psychology, 83, 237-250.
- HALPERN, J., MAUNDER, R. G., SCHWARTZ, B. & GUREVICH, M. 2012. *Identifying, describing, and expressing emotions after critical incidents in paramedics*. Journal of Traumatic Stress, 25, 111-114.
- HARRIS, M. B., BALOĞLU, M. & STACKS, J. R. 2002. *Mental health of trauma-exposed firefighters and critical incident stress debriefing*. Journal of Loss and Trauma, 7, 223-238.
- HARRISON, V., PROUDFOOT, J., WEE, P. P., PARKER, G., PAVLOVIC, D. H. & MANICAVASAGAR, V. 2011. *Mobile mental health: review of the emerging field and proof of concept study*. Journal of mental health, 20, 509-524.
- HARTLEY, T. A., SARKISIAN, K., VIOLANTI, J. M., ANDREW, M. E. & BURCHFIEL, C. M. 2013. *PTSD symptoms among police officers: associations with frequency, recency, and types of traumatic events*. International journal of emergency mental health, 15, 241.
- HARVEY, S. B., MILLIGAN-SAVILLE, J. S., PATERSON, H. M., HARKNESS, E. L., MARSH, A. M., DOBSON, M., KEMP, R. & BRYANT, R. A. 2016. *The mental health of fire-fighters: An examination of the impact of repeated trauma exposure*. The Australian and New Zealand journal of psychiatry, 50, 649-58.
- HASLAM, C. & MALLON, K. 2003. *A preliminary investigation of post-traumatic stress symptoms among firefighters*. Work & Stress, 17, 277-285.
- HATAM, N., JALALI, M. T., ASKARIAN, M. & KHARAZMI, E. 2016. *Relationship between Family-Work and Work-Family Conflict with Organizational Commitment and Desertion Intention among Nurses and Paramedical Staff at Hospitals*. International Journal of Community Based Nursing & Midwifery, 4, 107-118.
- HAUGEN, P. T., MCCRILLIS, A. M., SMID, G. E. & NIJDAM, M. J. 2017. *Mental health stigma and barriers to mental health care for first responders: A systematic review and meta-analysis*. Journal of psychiatric research, 94, 218-229.
- HAWKINS, H. C. 2001. *Police officer burnout: A partial replication of Maslach's Burnout Inventory*. Police Quarterly, 4, 343-360.
- HE, N., ZHAO, J. & REN, L. 2005. *Do race and gender matter in police stress? A preliminary assessment of the interactive effects*. Journal of Criminal Justice, 33, 535-547.
- HE, N., ZHAO, J. H. & ARCHBOLD, C. 2002. *Gender and police stress: The convergent and divergent impact of work environment, work-family conflict, and stress coping mechanisms of female and male police officers*. Policing: An International Journal of Police Strategies & Management, 25, 687-708.
- HESKETH, I., COOPER, C. & IVY, J. 2019. *Leading the asset: Resilience training efficacy in UK policing*. The Police Journal, 92, 56-71.
- HESKETH, I., COOPER, C. L. & IVY, J. 2014a. *Leaveism and Work-Life Integration: The Thinning Blue Line? Policing: A Journal of Policy and Practice*, 9, 183-194.
- HESKETH, I., L. COOPER, C. & IVY, J. 2014b. *Leaveism and public sector reform: will the practice continue?* Journal of Organizational Effectiveness: People and Performance, 1, 205-212.
- HILL, R. & BRUNSDEN, V. 2009. *'Heroes' as victims: Role reversal in the Fire and Rescue Service*. The Irish Journal of Psychology, 30, 75-86.

- HIRD, K., BELL, F., MARS, B., JAMES, C. & GUNNELL, D. 2019. OP6 *An investigation into suicide amongst ambulance service staff*. BMJ Publishing Group Ltd and the British Association for Accident
- HOMEOFFICE 2019. *The Front Line Review - Recommendation Report*. In: OFFICE, H. (ed.).
- HOROWITZ, M., WILNER, N. & ALVAREZ, W. 1979. *Impact of Event Scale: A measure of subjective stress*. Psychosomatic medicine, 41, 209-218.
- HOUDMONT, J., ELLIOTT-DAVIES, M. & DONNELLY, J. 2018. *Leaveism in English and Welsh police forces: baseline reference values*. Occupational Medicine, 68, 593-599.
- HOUDMONT, J. & RANDALL, R. 2016. *Working hours and common mental disorders in English police officers*. Occupational Medicine-Oxford, 66, 713-718.
- HOVEN, C. W., DUARTE, C. S., WU, P., DOAN, T., SINGH, N., MANDELL, D. J., BIN, F., TEICHMAN, Y., TEICHMAN, M. & WICKS, J. 2009. *Parental exposure to mass violence and child mental health: The first responder and WTC evacuee study*. Clinical child and family psychology review, 12, 95-112.
- HUNT, E., JONES, N., HASTINGS, V. & GREENBERG, N. 2013. *TRiM: An organizational response to traumatic events in Cumbria Constabulary*. Occupational medicine, 63, 549-555.
- JAHNKE, S. A., POSTON, W. S., HADDOCK, C. K. & MURPHY, B. 2016. *Firefighting and mental health: Experiences of repeated exposure to trauma*. Work (Reading, Mass.), 53, 737-744.
- JANZEN, B., MUHAJARINE, N. & KELLY, I. 2007. *Work-family conflict, and psychological distress in men and women among Canadian police officers*. Psychological Reports, 100, 556-562.
- JEANNETTE, J. M. & SCOBORIA, A. 2008. *Firefighter preferences regarding post-incident intervention*. Work & Stress, 22, 314-326.
- JOHNSON, L. B., TODD, M. & SUBRAMANIAN, G. 2005. *Violence in police families: Work-family spillover*. Journal of family violence, 20, 3-12.
- JONES, J. 2017. *How can mentoring support women in a male-dominated workplace? A case study of the UK police force*. Palgrave Communications, 3, 16103.
- JONES, N., ROBERTS, P. & GREENBERG, N. 2003. *Peer group risk assessment: a post traumatic management strategy for hierarchical organizations*. Occupational Medicine, 53, 469-475.
- JONES, N., WHELAN, C., HARDEN, L., MACFARLANE, A., BURDETT, H. & GREENBERG, N. 2019. *Resilience-based intervention for UK military recruits: a randomised controlled trial*. Occup Environ Med, 76, 90-96.
- JONSSON, A., SEGESTEN, K., MATTSSON, B., JONSSON, A., SEGESTEN, K. & MATTSSON, B. 2003. *Post-traumatic stress among Swedish ambulance personnel*. Emergency Medicine Journal, 79-84.
- JOSEPH, S. 2000. *Psychometric evaluation of Horowitz's Impact of Event Scale: a review*. Journal of traumatic stress, 13, 101-113.
- KAMUJU, N. R. 2015. *A study of relationship between work-family conflict and occupational stress in police personnel*. Indian Journal of Psychiatry, 1), S75.
- KARAFFA, K., OPENSHAW, L., KOCH, J., CLARK, H., HARR, C. & STEWART, C. 2015. *Perceived impact of police work on marital relationships*. The Family Journal, 23, 120-131.
- KEHL, D., KNUTH, D., HULSE, L. & SCHMIDT, S. 2014. *Posttraumatic Reactions among Firefighters after Critical Incidents: Cross-National Data*. Journal of Aggression, Maltreatment & Trauma, 23, 842-853.
- KINDNESS, P., FITZPATRICK, D., MELLISH, C., MASTHOFF, J., O'MEARA, P. & MCEWAN, M. 2014. *An insight into the demands and stressors experienced by Community First Responders*. Journal of Paramedic Practice, 6, 362-369.
- KING, D. B. & DELONGIS, A. 2014. *When couples disconnect: Rumination and withdrawal as maladaptive responses to everyday stress*. Journal of Family Psychology, 28, 460.
- KOHAN, A. & O'CONNOR, B. P. 2002. *Police officer job satisfaction in relation to mood, well-being, and alcohol consumption*. The Journal of psychology, 136, 307-318.
- KULA, S. 2017. *Occupational stress, supervisor support, job satisfaction, and work-related burnout: Perceptions of Turkish National Police (TNP) members*. Police Practice and Research, 18, 146-159.
- LAMBERT, A., STEINKE, C. M. & HARRIS, K. J. 2012. *Benefit availability and usage: Examination of independent and interactive effects*. Journal of Managerial Issues, 24, 369-389.
- LAMBERT, E. G., QURESHI, H., FRANK, J., KEENA, L. D. & HOGAN, N. L. 2017. *The relationship of work-family conflict with job stress among Indian police officers: A research note*. Police Practice & Research: An International Journal, 18, 37-48.
- LAMBERT, E. G., QURESHI, H., FRANK, J., KLAHM, C. & SMITH, B. 2018. *Job stress, job involvement, job satisfaction, and organizational commitment and their associations with job burnout among Indian police officers: A research note*. Journal of Police and Criminal Psychology, 33, 85-99.
- LAMONTAGNE, A. D., KEEGEL, T., LOUIE, A. M., OSTRY, A. & LANDSBERGIS, P. A. 2007. *A systematic review of the job-stress intervention evaluation literature, 1990-2005*. International journal of occupational and environmental health, 13, 268-280.

- LIBERMAN, A. M., BEST, S. R., METZLER, T. J., FAGAN, J. A., WEISS, D. S. & MARMAR, C. R. 2002. *Routine occupational stress and psychological distress in police*. Policing: An International Journal of Police Strategies & Management, 25, 421-441.
- LINDSAY, V. & SHELLEY, K. 2009. *Social and Stress-related Influences of Police Officers' Alcohol Consumption*. Journal of Police and Criminal Psychology, 24, 87-92.
- LOO, R. 2004. *A typology of burnout types among police managers*. Policing: An International Journal of Police Strategies & Management, 27, 156-165.
- MA, C. 2011. *Association of sleep quality with depression in police officers*. Emerg Ment Health, 13, 267-277.
- MA, C. C., ANDREW, M. E., FEKEDULEGN, D., GU, J. K., HARTLEY, T. A., CHARLES, L. E., VIOLANTI, J. M. & BURCHFIEL, C. M. 2015. *Shift work and occupational stress in police officers*. Safety and health at work, 6, 25-29.
- MAERTZ JR, C. P., GRIFFETH, R. W., CAMPBELL, N. S. & ALLEN, D. G. 2007. *The effects of perceived organizational support and perceived supervisor support on employee turnover*. Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 28, 1059-1075.
- MANDEVILLE, A., HALBESLEBEN, J. & WHITMAN, M. 2016. *Misalignment and misperception in preferences to utilize family-friendly benefits: Implications for benefit utilization and work-family conflict*. Personnel Psychology, 69, 895-929.
- MARSTON, HADLEY, PIKE & HESKETH 2020. *Games for Health & mHealth Apps for Police & Blue Light Personnel: A Scoping Review*. Submitted.
- MARTIN, C. E., TRAN, J. K. & BUSER, S. J. 2017. *Correlates of suicidality in firefighter/EMS personnel*. Journal of affective disorders, 208, 177-183.
- MCCARTY, W. P., "SOLOMON" ZHAO, J. & GARLAND, B. E. 2007. *Occupational stress and burnout between male and female police officers: Are there any gender differences?* Policing: an international journal of police strategies & management, 30, 672-691.
- MCCOY, S. P. & AAMODT, M. G. 2010. *A comparison of law enforcement divorce rates with those of other occupations*. Journal of Police and Criminal Psychology, 25, 1-16.
- MCDAID, D. 2011. *Making the long-term economic case for investing in mental health to contribute to sustainability*. European Union.
- MCMANUS, S., BEBBINGTON, P., JENKINS, R. & BRUGHA, T. 2016. *Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014*. A survey carried out for NHS Digital by NatCen Social Research and the Department of Health Sciences, University of Leicester.
- MÉNARD, K. S., ARTER, M. L. & KHAN, C. 2016. *Critical incidents, alcohol and trauma problems, and service utilization among police officers from five countries*. International journal of comparative and applied criminal justice, 40, 25-42.
- MENENDEZ, A. M., MOLLOY, J. & MAGALDI, M. C. 2006. *Health responses of New York City firefighter spouses and their families post-September 11, 2001 terrorist attacks*. Issues in mental health nursing, 27, 905-917.
- MEYER, E. C., ZIMERING, R., DALY, E., KNIGHT, J., KAMHOLZ, B. W. & GULLIVER, S. B. 2012. *Predictors of posttraumatic stress disorder and other psychological symptoms in trauma-exposed firefighters*. Psychological services, 9, 1.
- MIKKELSEN, A. & BURKE, R. J. 2004. *Work-family concerns of Norwegian police officers: Antecedents and consequences*. International Journal of Stress Management, 11, 429-444.
- MILLAR, A. 2002. *Beyond resolution of presenting issues: Clients' experiences of an in house police counselling service*. Counselling and Psychotherapy research, 2, 159-166.
- MILLER, H. A., MIRE, S. & KIM, B. 2009. *Predictors of job satisfaction among police officers: Does personality matter?* Journal of Criminal Justice, 37, 419-426.
- MILLER, J. 2016. *The well-being and productivity link: a significant opportunity for research-into-practice*. Journal of Organizational Effectiveness: People and Performance, 3, 289-311.
- MILLIGAN-SAVILLE, J., CHOI, I., DEADY, M., SCOTT, P., TAN, L., CALVO, R. A., BRYANT, R. A., GLOZIER, N. & HARVEY, S. B. 2018. *The impact of trauma exposure on the development of PTSD and psychological distress in a volunteer fire service*. Psychiatry research, 270, 1110-1115.
- MIND 2015. *Blue Light Scoping Survey*.
- MIND 2019a. *Mental Health in the Emergency Services - Our 2019 Survey Results - Ambulance service*.
- MIND 2019b. *Mental Health in the Emergency Services - Our 2019 Survey Results - Fire service*.
- MIND 2019c. *Mental Health in the Emergency Services - Our 2019 Survey Results - Police service*.
- MIND 2019d. *Mental Health in the Emergency Services - Our 2019 Survey Results - Search and Rescue*.
- MISRA, M., GREENBERG, N., HUTCHINSON, C., BRAIN, A. & GLOZIER, N. 2009. *Psychological impact upon London Ambulance Service of the 2005 bombings*. Occupational medicine, 59, 428-433.
- MOFFITT, J., BOSTOCK, J. & CAVE, A. 2014. *Promoting well-being and reducing stigma about mental health in the fire service*. Journal of Public Mental Health, 13, 103-113.

- MOHR, D., VEDANTHAM, K., NEYLAN, T., METZLER, T. J., BEST, S. & MARMAR, C. R. 2003. *The mediating effects of sleep in the relationship between traumatic stress and health symptoms in urban police officers*. Psychosomatic Medicine, 65, 485-489.
- MONNIER, J., CAMERON, R. P., HOBFOLL, S. E. & GRIBBLE, J. R. 2002. *The impact of resource loss and critical incidents on psychological functioning in fire-emergency workers: A pilot study*. International Journal of Stress Management, 9, 11-29.
- MORAHAN-MARTIN, J. M. 2004. *How internet users find, evaluate, and use online health information: a cross-cultural review*. CyberPsychology & Behavior, 7, 497-510.
- MORASH, M., HAARR, R. & KWAK, D.-H. 2006. *Multilevel Influences on Police Stress*. Journal of Contemporary Criminal Justice, 22, 26-43.
- MORGAN, A. J., ROSS, A. & REAVLEY, N. J. 2018. *Systematic review and meta-analysis of Mental Health First Aid training: Effects on knowledge, stigma, and helping behaviour*. PloS one, 13.
- NALLA, M. K. & KANG, W. 2012. *Organizational climate, perceived citizen support, and job satisfaction of police officers: Findings from the post-grand reform era in South Korea*. Asian Journal of Criminology, 7, 153-171.
- NEYLAN, T. C., METZLER, T. J., BEST, S. R., WEISS, D. S., FAGAN, J. A., LIBERMAN, A., ROGERS, C., VEDANTHAM, K., BRUNET, A., LIPSEY, T. L. & MARMAR, C. R. 2002. *Critical Incident Exposure and Sleep Quality in Police Officers*. Psychosomatic Medicine, 64, 345-352.
- ONS 2018. *Full report: Sickness absence in the labour market*. Office for National Statistics UK.
- ØRNER, R. 2003. *A new evidence base for making early intervention in emergency services complementary to officers' preferred adjustment and coping strategies*. Reconstructing early intervention after trauma: Innovations in the care of survivors, 143-153.
- PAGE, K. S. & JACOBS, S. C. 2011. *Surviving the shift: Rural police stress and counseling services*. Psychological Services, 8, 12.
- PATTERSON, M. C., POOLE, A. D., TREW, K. J. & HARKIN, N. 2001. *The psychological and physical health of police officers retired recently from the Royal Ulster Constabulary*. The Irish journal of psychology, 22, 1-27.
- PELTZER, K. 2001. *Stress and traumatic symptoms among police officers at a South African police station*. Acta Criminologica: Southern African Journal of Criminology, 14, 52-56.
- PEREZ, L. M., JONES, J., ENGLERT, D. R. & SACHAU, D. 2010. *Secondary traumatic stress and burnout among law enforcement investigators exposed to disturbing media images*. Journal of Police and Criminal Psychology, 25, 113-124.
- PERRIN, M. A., DIGRANDE, L., WHEELER, K., THORPE, L., FARFEL, M. & BRACKBILL, R. 2007. *Differences in PTSD prevalence and associated risk factors among World Trade Center disaster rescue and recovery workers*. American Journal of Psychiatry, 164, 1385-1394.
- PFEFFERBAUM, B., NORTH, C. S., BUNCH, K., WILSON, T. G., TUCKER, P. & SCHORR, J. K. 2002. *The impact of the 1995 Oklahoma City bombing on the partners of firefighters*. Journal of Urban Health, 79, 364-372.
- PHUNG, V. H., TRUEMAN, I., TOGHER, F., ORNER, R. & SIRIWARDENA, A. N. 2018. *Perceptions and experiences of community first responders on their role and relationships: qualitative interview study*. Scandinavian journal of trauma, resuscitation and emergency medicine, 26, 13.
- POLHEBER, J. P. & MATCHOCK, R. L. 2014. *The presence of a dog attenuates cortisol and heart rate in the Trier Social Stress Test compared to human friends*. Journal of behavioral medicine, 37, 860-867.
- PORTER, K. L. & HENRIKSEN JR, R. C. 2016. *The phenomenological experience of first responder spouses*. The Family Journal, 24, 44-51.
- QURESHI, H., LAMBERT, E. G. & FRANK, J. 2019. *When Domains Spill Over: The Relationships of Work-Family Conflict With Indian Police Affective and Continuance Commitment*. International journal of offender therapy and comparative criminology, 306624X19846347-306624X19846347.
- QURESHI, H., LAMBERT, E. G., KEENA, L. D. & FRANK, J. 2016. *Exploring the association between organizational structure variables and work on family strain among Indian police officers*. Criminal Justice Studies: A Critical Journal of Crime, Law & Society, 29, 253-271.
- RAJARATNAM, S. M., BARGER, L. K., LOCKLEY, S. W., SHEA, S. A., WANG, W., LANDRIGAN, C. P., O'BRIEN, C. S., QADRI, S., SULLIVAN, J. P. & CADE, B. E. 2011. *Sleep disorders, health, and safety in police officers*. Jama, 306, 2567-2578.
- RATHI, N. & BARATH, M. 2013. *Work-family conflict and job and family satisfaction: Moderating effect of social support among police personnel*. Equality, Diversity and Inclusion: An International Journal, 32, 438-454.
- REGEHR, C. 2005. *Bringing the trauma home: Spouses of paramedics*. Journal of Loss and Trauma, 10, 97-114.
- REGEHR, C. 2009. *Social support as a mediator of psychological distress in firefighters*. The Irish Journal of Psychology, 30, 87-98.
- REGEHR, C., DIMITROPOULOS, G., BRIGHT, E., GEORGE, S. & HENDERSON, J. 2005. *Behind the brotherhood: Rewards and challenges for wives of firefighters*. Family Relations, 54, 423-435.
- REGEHR, C., HILL, J. & GLANCY, G. D. 2000. *Individual predictors of traumatic reactions in firefighters*. Journal of Nervous and Mental Disease, 188, 333-339.

- REGEHR, C., HILL, J., GOLDBERG, G. & HUGHES, J. 2003a. *Postmortem inquiries and trauma responses in paramedics and firefighters*. *Journal of Interpersonal Violence*, 18, 607-622.
- REGEHR, C., HILL, J., KNOTT, T. & SAULT, B. 2003b. *Social support, self efficacy and trauma in new recruits and experienced firefighters*. *Stress and Health*, 19, 189-193.
- REGEHR, C., LEBLANC, V. R., BARATH, I., BALCH, J. & BIRZE, A. 2013. *Predictors of physiological stress and psychological distress in police communicators*. *Police practice and research*, 14, 451-463.
- REGEHR, C. & MILLAR, D. 2007. *Situation Critical: High Demand, Low Control, and Low Support in Paramedic Organizations*. *Traumatology*, 13, 49-58.
- RENCK, B., WEISAETH, L. & SKARBÖ, S. 2002. *Stress reactions in police officers after a disaster rescue operation*. *Nordic Journal of Psychiatry*, 56, 7-14.
- RICHARDSON, K. M. 2016. *The surviving sisters club: Examining social support and posttraumatic growth among FDNY 9/11 widows*. *Journal of Loss and Trauma*, 21, 1-15.
- ROACH, J., CARTWRIGHT, A. & SHARRATT, K. 2017. *Dealing with the unthinkable: A study of the cognitive and emotional stress of adult and child homicide investigations on police investigators*. *Journal of police and criminal psychology*, 32, 251-262.
- ROACH, J., SHARRATT, K., CARTWRIGHT, A. & ROER, T. S. 2018. *Cognitive and Emotional Stressors of Child Homicide Investigations on UK and Danish Police Investigators*. *Homicide Studies*, 22, 296-320.
- ROBERTS, B. W., JACKSON, J. J., FAYARD, J. V., EDMONDS, G. & MEINTS, J. 2009. *Conscientiousness*.
- ROBERTS, N. A., LEONARD, R. C., BUTLER, E. A., LEVENSON, R. W. & KANTER, J. W. 2013. *Job stress and dyadic synchrony in police marriages: A preliminary investigation*. *Family process*, 52, 271-283.
- ROBERTS, N. A. & LEVENSON, R. W. 2001. *The remains of the workday: Impact of job stress and exhaustion on marital interaction in police couples*. *Journal of marriage and family*, 63, 1052-1067.
- ROBERTSON, I. T., COOPER, C. L., SARKAR, M. & CURRAN, T. 2015. *Resilience training in the workplace from 2003 to 2014: A systematic review*. *Journal of occupational and organizational psychology*, 88, 533-562.
- ROSE, S., BISSON, J. & WESSELY, S. 2003. *A systematic review of single-session psychological interventions ('debriefing') following trauma*. *Psychotherapy and psychosomatics*, 72, 176-184.
- ROTH, S. G. & MOORE, C. D. 2009. *Work-family fit: the impact of emergency medical services work on the family system*. *Prehospital emergency care*, 13, 462-468.
- RUIZ, J. & MORROW, E. 2005. *Retiring the old centurion: Life after a career in policing—An exploratory study*. *International journal of public administration*, 28, 1151-1186.
- RUMENS, N. & BROOMFIELD, J. 2012. *Gay men in the police: identity disclosure and management issues*. *Human Resource Management Journal*, 22, 283-298.
- RYAN, A. 2000. *The prevalence of domestic violence in police families*. *Domestic violence by police officers*, 297-307.
- SANTOS, A., LEATHER, P., DUNN, J. & ZAROLA, A. 2009. *Gender differences in exposure to co-worker and public-initiated violence: assessing the impact of work-related violence and aggression in police work*. *Work and Stress*, 23, 137-154.
- SAREEN, J. 2018. *Posttraumatic stress disorder in adults: Epidemiology, pathophysiology, clinical manifestations, course, assessment, and diagnosis*. Retrieved from UpToDate website: <https://www.uptodate.com/contents/posttraumatic-stress-disorder-in-adultepidemiology-pathophysiology-clinical-manifestations-course-assessment-anddiagnosis>.
- SATTLER, D. N., BOYD, B. & KIRSCH, J. 2014. *Trauma exposed firefighters: Relationships among posttraumatic growth, posttraumatic stress, resource availability, coping and critical incident stress debriefing experience*. *Stress and Health*, 30, 356-365.
- SENJO, S. R. 2011. *Dangerous fatigue conditions: a study of police work and law enforcement administration*. *Police Practice and Research: An International Journal*, 12, 235-252.
- SHAKESPEARE-FINCH, J., GOW, K. & SMITH, S. 2005. *Personality, Coping and Posttraumatic Growth in Emergency Ambulance Personnel*. *Traumatology*, 11, 325-334.
- SHAKESPEARE-FINCH, J., SMITH, S., GOW, K., EMBELTON, G. & BAIRD, L. 2003. *The prevalence of post-traumatic growth in emergency ambulance personnel*. *Traumatology*, 9, 58-71.
- SHAKESPEARE-FINCH, J., SMITH, S. & OBST, P. 2002. *Trauma, coping resources, and family functioning in emergency services personnel: A comparative study*. *Work & Stress*, 16, 275-282.
- SHEPHERD, L. & WILD, J. 2014. *Cognitive appraisals, objectivity and coping in ambulance workers: a pilot study*. *Emerg Med J*, 31, 41-44.
- SHREFFLER, K. M., MEADOWS, M. P. & DAVIS, K. D. 2011. *Firefighting and fathering: Work-family conflict, parenting stress, and satisfaction with parenting and child behavior*. *Fathering: A Journal of Theory, Research, and Practice about Men as Fathers*, 9, 169-188.
- SINGH, R. & NAYAK, J. K. 2015. *Mediating role of stress between work-family conflict and job satisfaction among the police officials Moderating role of social support*. *Policing—an International Journal of Police Strategies & Management*, 38, 738-753.

- SINGH, S. & KAR, S. K. 2015. *Sources of occupational stress in the police personnel of North India: An exploratory study*. Indian journal of occupational and environmental medicine, 19, 56-60.
- SMITH, A. P. 2011. *Work-related stress in Her Majesty's Coastguard*. International maritime health, 62, 148-154.
- SMITH, A. P. 2012. *Combined effects of work-related stress in Her Majesty's Coastguard (HMCG)*. International maritime health, 63, 63-70.
- SMITH, L. & MASON, C. 2001a. *Age and the subjective experience of shiftwork*. Journal of human ergology, 30, 307-313.
- SMITH, L. & MASON, C. 2001b. *Shiftwork locus of control effects in police officers*. Journal of human ergology, 30, 217-222.
- SOH, M., ZAROLA, A., PALAIIOU, K. & FURNHAM, A. 2016. *Work-related well-being*. Health psychology open, 3, 2055102916628380.
- SPRIGG, C. A., ARMITAGE, C. J. & HOLLIS, K. 2007. *Verbal abuse in the National Health Service: impressions of the prevalence, perceived reasons for and relationships with staff psychological well-being*. Emergency Medicine Journal, 24, 281-282.
- STANLEY, I. H., HOM, M. A., HAGAN, C. R. & JOINER, T. E. 2015. *Career prevalence and correlates of suicidal thoughts and behaviors among firefighters*. Journal of Affective Disorders, 187, 163-171.
- STANLEY, I. H., HOM, M. A., SPENCER-THOMAS, S. & JOINER, T. E. 2017. *Examining anxiety sensitivity as a mediator of the association between PTSD symptoms and suicide risk among women firefighters*. Journal of anxiety disorders, 50, 94-102.
- STEVELINK, S. A., JONES, M., HULL, L., PERNET, D., MACCRIMMON, S., GOODWIN, L., MACMANUS, D., MURPHY, D., JONES, N. & GREENBERG, N. 2018. *Mental health outcomes at the end of the British involvement in the Iraq and Afghanistan conflicts: a cohort study*. The British Journal of Psychiatry, 213, 690-697.
- STOCKTON, H., HUNT, N. & JOSEPH, S. 2011. *Cognitive processing, rumination, and posttraumatic growth*. Journal of traumatic stress, 24, 85-92.
- STORES, G. 2003. *Misdiagnosing sleep disorders as primary psychiatric conditions*. Advances in Psychiatric Treatment, 9, 69-77.
- TEHRANI, N. 2016a. *Extraversion, neuroticism and secondary trauma in Internet child abuse investigators*. Occupational medicine, 66, 403-407.
- TEHRANI, N. 2016b. *Extraversion, neuroticism and secondary trauma in Internet child abuse investigators*. Occupational medicine (Oxford, England), 66, 403-407.
- TEHRANI, N. 2018. *Psychological well-being and workability in child abuse investigators*. Occupational medicine, 68, 165-170.
- TENNANT, R., HILLER, L., FISHWICK, R., PLATT, S., JOSEPH, S., WEICH, S., PARKINSON, J., SECKER, J. & STEWART-BROWN, S. 2007. *The Warwick-Edinburgh mental well-being scale (WEMWBS): development and UK validation*. Health and Quality of life Outcomes, 5, 63.
- THOMPSON, B. M., KIRK, A. & BROWN, D. F. 2005. *Work based support, emotional exhaustion, and spillover of work stress to the family environment: A study of policewomen*. Stress and Health, 21, 199-207.
- TSAI, L. C.-F., NOLASCO, C. A. R. I. & VAUGHN, M. S. 2018. *Modeling job stress among police officers: interplay of work environment, counseling support, and family discussion with co-workers*. Police Practice and Research, 19, 253-269.
- UCHIDA, M., FENG, H., FEDER, A., MOTA, N., SCHECHTER, C. B., WOODWORTH, H. D., KELBERMAN, C. G., CRANE, M., LANDRIGAN, P. & MOLINE, J. 2018. *Parental posttraumatic stress and child behavioral problems in world trade center responders*. American journal of industrial medicine, 61, 504-514.
- VIOLANTI, J. M. 2004. *Predictors of police suicide ideation*. Suicide and Life Threatening Behavior, 34, 277-283.
- VIOLANTI, J. M., FEKEDULEGN, D., ANDREW, M. E., CHARLES, L. E., HARTLEY, T. A., VILA, B. & BURCHFIEL, C. M. 2012. *Shift work and the incidence of injury among police officers*. American journal of industrial medicine, 55, 217-227.
- WATSON, L. & ANDREWS, L. 2018. *The effect of a Trauma Risk Management (TRiM) program on stigma and barriers to help-seeking in the police*. International journal of stress management, 25, 348.
- WEATHERS, F. W., LITZ, B. T., HERMAN, D. S., HUSKA, J. A. & KEANE, T. M. The PTSD Checklist (PCL): *Reliability, validity, and diagnostic utility*. Annual convention of the international society for traumatic stress studies, San Antonio, TX, 1993. San Antonio, TX.
- WEIBEL, L., GABRION, I., AUSSEDAT, M. & KREUTZ, G. 2003. *Work-related stress in an emergency medical dispatch center*. Annals of emergency medicine, 41, 500-506.
- WEIR, H., STEWART, D. M. & MORRIS, R. G. 2012. *Problematic alcohol consumption by police officers and other protective service employees: A comparative analysis*. Journal of Criminal Justice, 40, 72-82.
- WEST, C., BERNARD, B., MUELLER, C., KITT, M., DRISCOLL, R. & TAK, S. 2008. *Mental health outcomes in police personnel after Hurricane Katrina*. Journal of Occupational & Environmental Medicine, 50, 689-695.
- WHEATER, K. & ERASMUS, C. 2017. *Experiences of secondary trauma amongst spouses of emergency service personnel*. Social Work, 53, 470-478.
- WILD, J. 2016. *An evaluation of Mind's resilience intervention for emergency workers*. Final Report.

WILLIS, T. A., O'CONNOR, D. B. & SMITH, L. 2008. *Investigating effort-reward imbalance and work-family conflict in relation to morningness-eveningness and shift work*. *Work & Stress*, 22, 125-137.

WOLAK, J. & MITCHELL, K. J. 2009. *Work exposure to child pornography in ICAC task forces and affiliates*. Retrieved from Crimes against Children Research Center: [http://www.unh.edu/ccrc/pdf/Law% 20Enforcement% 20Work% 20Exposure% 20to% 20CP. pdf](http://www.unh.edu/ccrc/pdf/Law%20Enforcement%20Work%20Exposure%20to%20CP.pdf).

WRIGHT, T. 2008. *Lesbian firefighters: Shifting the boundaries between "masculinity" and "femininity"*. *Journal of lesbian studies*, 12, 103-114.

ZAVALA, E. 2013. *Testing the link between child maltreatment and family violence among police officers*. *Crime & Delinquency*, 59, 468-483.

ZHANG, J. & LIU, Y. 2011. *Antecedents of work-family conflict: Review and prospect*. *International journal of business and management*, 6, 89.

ZIGMOND, A. S. & SNAITH, R. P. 1983. *The hospital anxiety and depression scale*. *Acta psychiatrica scandinavica*, 67, 361-370.

Notes

- 1 TRiM (Trauma Risk Management) is a trauma-focused peer support system designed to help people who have experienced a traumatic, or potentially traumatic, event. TRiM Practitioners are non-medical personnel who have undergone specific training allowing them to understand the effects that traumatic events can have upon people and can signpost individuals to support if needed.
- 2 The term grey literature has been defined as: "That which is produced on all levels of government, academics, business and industry in print and electronic formats, but which is not controlled by commercial publishers". (The 'Luxembourg' definition) Fourth International Conference on Grey Literature: New Frontiers in Grey Literature. GreyNet, Grey Literature Network Service. Washington D.C. USA, 4-5 October 1999
- 3 <https://cks.nice.org.uk/depression#!background>
- 4 <https://www.nice.org.uk/guidance/cg113/chapter/Introduction>
- 5 A representative sample enables generalisations from study findings to the broader population of interest and is a group that closely matches the characteristics of its population as a whole
- 6 <https://www.nice.org.uk/guidance/ng116/chapter/Context>
- 7 For a full description of symptoms please see: <https://www.nice.org.uk/guidance/ng116/chapter/Recommendations#recognition-of-post-traumatic-stress-disorder>
- 8 'Probable' PTSD terminology is used to indicate a 'probable' diagnosis of PTSD that requires a further clinical diagnosis by a clinical professional.
- 9 https://www.cam.ac.uk/sites/www.cam.ac.uk/files/inner-images/thejobthelife_findings.pdf
- 10 Problem-focused coping: where individuals perceive control over the root cause of a problem and seek an active solution to solve the issue.
- 11 Emotion-focused coping: where participants do not perceive control over an issue and seek to manage the emotions related to the problem.
- 12 Appraisal-based coping: where individuals are taught to frame or reframe problems in positive ways.
- 13 <https://www.bbc.co.uk/news/uk-england-49910746>
- 14 <https://oscarkilo.org.uk/national-police-wellbeing-service/>
- 15 <https://oscarkilo.org.uk/wellbeing-framework/>
- 16 Psychoeducation refers to the process of giving information and education regarding mental health and wellbeing that may serve the goal of supporting early identification of conditions, help-seeking, treatment and rehabilitation.
- 17 An employee assistance programme is an employee benefit programme that assists employees with personal problems and/or work-related problems that may impact their job performance, health, mental and emotional well-being.
- 18 <https://www.nice.org.uk/donotdo/for-individuals-who-have-experienced-a-traumatic-event-the-systematic-provision-to-that-individual-alone-of-brief-singlesession-interventions-often-referred-to-as-debriefing-that-focus-on-the>
- 19 Studies that had police, fire, ambulance families in one study.
- 20 Social dysfunction is an umbrella term used to describe a variety of emotional problems largely experienced in social situations such as fear and shyness difficulties in relating to others.
- 21 Somatic symptoms are often indicators of mental health disorders and can include pain, gastrointestinal problems, fatigue and can cause excessive levels of distress in individuals.

Appendices

Appendix 1: Systematic Review Methods: Emergency Responders

Search Strategy

A search of the literature was undertaken using the following approaches:

- Scientific databases MEDLINE, EMBASE, PsychINFO, PILOTS, Web of Science, EBSCO, and CINAHL were systematically searched using the initial search terms: mental health AND wellbeing AND emergency responder AND UK. Additional searches then expanded on this by adding in various synonyms and spelling variations.
- Bibliographies of articles found through the database searches were then hand-searched and eligible papers added for review.
- Requests for literature relevant to the topic were made to those working in this field.

Titles and abstracts were reviewed and full text articles that were screened as relevant were obtained and reviewed against the following inclusion criteria:

- Papers dating from January 2000 - June 2019.
- English language papers.
- UK Emergency Responder population, including police, fire-fighters, paramedics, RNLI, Coastguard, mountain rescue, Internet Child Abuse Investigator (ICAT) officers, patrol officers, call-handlers, or other public safety roles.
- Papers containing primary data.
- Studies published in peer-reviewed journals and studies/reports deemed as 'grey literature'.
- Studies using quantitative or qualitative, or mixed methodologies.
- Outcomes of interest: mental health or wellbeing.
- Mental health outcomes include common

- mental health disorders (depression and anxiety disorders); post-traumatic stress disorder (PTSD); alcohol problems (e.g. hazardous drinking, misuse, abuse, dependence etc.); stress (e.g. organisational stress, traumatic stress reaction, burnout, secondary traumatic stress, compassion fatigue etc.).
- Wellbeing outcomes include positive relations with others, autonomy, purpose in life, personal growth; social support and relationships; satisfaction with life; employment status; short/long term sick leave; voluntary resignation; financial outcomes (e.g. debt).

81 papers were included in the review.

Data Extraction and Analysis

Data from 81 papers were extracted into tables, which included information on author, title and date of publication, responder population (i.e. firefighters, police officers, ambulance/ paramedics etc.), overall sample size, sub-sample sizes (i.e. how many in each group), study design, data collection method, response rate, mental health and wellbeing outcomes and measures (including references of instruments used and key variables measured). Data were also extracted including means, standard deviations, and prevalence of mental health items. Studies were grouped into thematic areas defined by the search criteria topics and common broad themes arising in from the studies' findings. Quantitative, qualitative and mixed methods papers were analysed and integrated together. Studies assessing intervention studies and grey literature were analysed separately.

Appendix 2: Methodology for Landscape Review

Aims

The landscape review aimed to:

- 1) Provide a snapshot, point-in-time, descriptive overview of current initiatives and strategies that exist to support the mental health and wellbeing of emergency responders (ERs) in the UK, based on interviews with 33 individuals based in Occupational Health, Human Resources, Wellbeing Teams, or employees with some other wellbeing responsibility.
- 2) Identify areas of on-going activity, including primary research in this domain, and in-vivo evaluation of interventions.
- 3) Highlight gaps/limitations in this domain, both overall and for the different branches of the emergency services including: Police, Fire, Ambulance, Search and Rescue and volunteer services such as the RNLI.
- 4) Identify and describe the available online (internet) resources and services that play roles in supporting emergency responders.
- 5) Give a brief overview of the key charities that support emergency service personnel, and the unique support they provide.

Methods

The review aimed to give an overview of the current wellbeing related initiatives, policies, and adjunct services available to ERs across different forces, and an outline of on-going (unpublished) research being carried out in this area. To achieve this, the review had two methodological strands to it:

Interviews

The researchers began with a list of stakeholders involved in the project, who they contacted to identify potential contacts involved in the different emergency services, with senior (or directly relevant) HR, OH or Wellbeing roles. These individuals were then contacted via email, and invited to take part in the study (with follow up invitations where appropriate). Ultimately, 8 Ambulance, 11 Fire and Rescue, 10 Police, and 4 other emergency service (including mountain rescue, RNLI and HM Coastguard) representatives agreed to take part in the interviews. Individuals were interviewed via telephone between April and September 2019. Interviews were semi-structured and typically lasted 45 minutes in duration. Where consent was given (n=32), interviews were audio-recorded, transcribed verbatim, and checked for accuracy.

An interview protocol was developed in consultation with the Royal Foundation Stakeholder Group, and the wider research team. Interview questions aimed to identify the current initiatives and policies regarding employee wellbeing across different emergency services (and other key stakeholders) across the UK. Interviewees were asked to provide information about the nature of the initiatives on offer, eligibility to use them, their uptake, monitoring and evaluation. They were also asked about variation across the sector, factors that can facilitate or hinder the success of wellbeing initiatives, gaps and opportunities for future consideration, and to highlight anything that might constitute 'best practice' in terms of supporting ER wellbeing.

To address the above-mentioned aims, the interviews were coded using a content analytic approach to identify salient themes and ideas. A priori coding categories were originally derived from expectations of points that might arise (based on the research team’s knowledge of current wellbeing initiatives in the emergency services). Following an initial read through of the responses, additional inductive codes were elicited from the data. Once all transcripts had been coded, initial codes were pooled, and (where appropriate) data reduction took place to group codes into coherent categories or themes.

Ethics approval for these interviews was obtained from the Open University Human Research Ethics Board. All interviewees provided

consent to their participation in the study and the use of their perspectives in the written report.

Desk-based review

Internet searches also took place to identify, describe and collate information about on-going research, practice and policies related to the mental health, wellbeing of UK ERs and their families. This was a pragmatic, rather than systematic review, and was carried out in a flexible manner, incorporating information gathered from the interviews, as they arose.

The following search terms were entered into Google as primary search engine, and a minimum of 10 search pages were reviewed:

Table 1 - Search Terms Completed

First responder mental health service	First responder + (wellbeing OR welfare)	First responder mental health program* (+ UK)
Emergency services mental health (+ program*)	Emergency services + (wellbeing OR welfare)	Emergency Services + Resilience
Emergency services mental health charity	NHS staff + (wellbeing OR welfare OR mental health)	[Service name] + (wellbeing OR welfare OR mental health)
Blue Light Staff + (mental health + wellbeing + welfare)	e-learning / e-course mental + health + first responder	[Individual Ambulance Service] + (wellbeing OR welfare OR mental health)
[Individual constabulary] + (wellbeing OR welfare OR mental health)	[Individual fire service] + (wellbeing OR welfare OR mental health)	Grenfell + (responders OR emergency services) + (support OR mental health)

The review summaries the nature of the wellbeing related initiatives, information, resources and on-going research that was identified from these searches.

Appendix 3: Database Scoping

As part of the systematic reviews a descriptive audit of databases pertaining to the mental health and wellbeing of ERs and their families was conducted.

Researchers were contacted for additional database sources in order to create a list of UK data sources.

Overview of current databases containing ER mental health and wellbeing information.

Database Name and Institution	Emergency Responder Population (e.g. Police, Fire, Ambulance)	Mental Health/Wellbeing Variables (if known) (e.g. GHQ-12, PCL-C, STSS)	Link to/description of database
ENHANCE, University of Sussex.	Police officers, paramedics, and A&E staff.	<ul style="list-style-type: none"> - Stigma measure, Reported and Intended Behaviour Scale (RIBS) - Community Attitudes Towards Mental Illness (CAMI) - Mental Illness Knowledge Scale (MAKS) - Social Distance Scale 	N/A
Airwave Health Monitoring Study, Liverpool University.	Police. UK Ambulance Service.	9-item patient health questionnaire (depression). 7 item hospital anxiety and depression scale – anxiety subscale (anxiety). 10 item PCL-C (PTSD). 2 items from the Alcohol Use Disorders Identification Test (alcohol use). List of 20 health conditions with yes/no tick box (e.g. diabetes, cancer, migraine, allergy). 6 items from the job content questionnaire (occupational stress).	https://www.police-health.org.uk/ 40,986 police officers and police staff. Database was originally designed to determine the impact of radio usage on health.

Continued overleaf

Overview of current databases containing ER mental health and wellbeing information.

Database Name and Institution	Emergency Responder Population (e.g. Police, Fire, Ambulance)	Mental Health/Wellbeing Variables (if known) (e.g. GHQ-12, PCL-C, STSS)	Link to/ description of database
SleepSmart, University of East Anglia.	UK Ambulance Service.	<ul style="list-style-type: none"> - Chalder Fatigue Questionnaire (CFQ) - Emergency healthcare worker sleep, fatigue, and alertness behaviour survey (EMS-SFAB) - EMS Safety Inventory (EMS-SI, Patterson et al. 2012) - Emergency medical services safety attitudes questionnaire (EMS-SAQ, Patterson et al. 2010) - Munich Chronotype Questionnaire (MCTQ) - Pittsburgh Sleep Quality Index (PSQI) - Sleep Hygiene Index (SHI, Mastin et al. 2006) - Epworth Sleepiness Scale (ESS) - Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS) - Brief Resilience Scale (BRS) - Patient Health Questionnaire (PHQ-9), Generalised Anxiety Disorder Questionnaire (GAD-7) - Primary Care PTSD Screen for DSM-5 (PC-PTSD-5) - International Physical Activity Questionnaire (IPAQ, Craig et al. 2003) - Alcohol Use Disorders Identification Test for Consumption (Audit-C) 	N/A

Continued overleaf

Overview of current databases containing ER mental health and wellbeing information.

Database Name and Institution	Emergency Responder Population (e.g. Police, Fire, Ambulance)	Mental Health/Wellbeing Variables (if known) (e.g. GHQ-12, PCL-C, STSS)	Link to/description of database
BioBank (Funded primarily by the Wellcome Trust and the Medical Research Council)	Police, Fire, Ambulance	<ul style="list-style-type: none"> - PTSD - Depression - Anxiety - Alcohol misuse 	https://www.ukbiobank.ac.uk
Adult Psychiatric Morbidity Survey 2014	Police, Fire, Ambulance	<ul style="list-style-type: none"> - Clinical Interview Schedule (CIS-R) has been used on each Adult Psychiatric Morbidity Survey (APMS) in the series to assess six types of CMD: depression, generalised anxiety disorder (GAD), panic disorder, phobias, obsessive compulsive disorder (OCD), and CMD not otherwise specified (CMD-NOS) - 17-item PTSD Checklist – Civilian (PCL-C) - Alcohol Use Disorders Identification Test (AUDIT) - Suicide ideation, Suicide attempts and Self Harm 	https://bit.ly/2U03jKD

Appendix 4: Grey Literature Returns

Emergency Services and volunteer responder occupations

- ♦ Mind research 2015 and 2019 from their Blue Light Programme.
 - MIND 2015. Blue Light Scoping Survey. <https://www.mind.org.uk/media/4627950/scoping-survey.pdf>
 - MIND 2019. Mental Health in the Emergency Services - Our 2019 Survey Results - Ambulance service. <https://www.mind.org.uk/media/34761932/2019-survey-ambulance-service-summary.pdf>
 - MIND 2019. Mental Health in the Emergency Services - Our 2019 Survey Results - Fire service. <https://www.mind.org.uk/media/34762502/2019-survey-fire-service-summary.pdf>
 - MIND 2019. Mental Health in the Emergency Services - Our 2019 Survey Results - Police service. <https://www.mind.org.uk/media/34762505/2019-survey-police-service-summary.pdf>
 - MIND 2019. Mental Health in the Emergency Services - Our 2019 Survey Results - Search and Rescue. <https://www.mind.org.uk/media/34762515/2019-survey-search-rescue-summary.pdf>

Police

- ♦ Home Office: Policing Front Line Review (2019) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/815791/FLR_Recommendations_report_sent_V2.pdf
- ♦ Police Federation: Pay and Morale Survey (2019) <https://www.polfed.org/media/15395/pay-and-morale-survey-2019-headline-report-31-10-19-v10.pdf>
- ♦ Oscar Kilo resources <https://oscarkilo.org.uk>

Ambulance

- ♦ Association of Ambulance Chief Executives (AACE) - Investigation using Office for National Statistics (ONS) data regarding the suicide rate amongst 13 Ambulance trusts in the UK (2019) <https://emj.bmj.com/content/36/1/e3.1>
- ♦ Association of Ambulance Chief Executives (AACE) Employee Mental Health Strategy Guidance (2018) <https://www.nhsemployers.org/-/media/Employers/Documents/Ambulance-workforce/AACE-Employee-Mental-Health-Strategy-Guidance.pdf>

Fire and Rescue

- ♦ House of Commons: Mental Health Support for Firefighters (2018) <http://researchbriefings.files.parliament.uk/documents/CDP-2018-0277/CDP-2018-0277.pdf>

Appendix 5:
CMD and PTSD factors

Factors associated with increased likelihood of CMD		
Factors associated with increased likelihood of CMD	Emergency Responder Branch	Study
Demographics <ul style="list-style-type: none"> ♦ Being Female ♦ Lower Rank ♦ Divorced/separated 	Police ” ”	Fielding 2018, Collins 2003, Tehrani 2016, 2018, Roach 2017 Houdmont 2016 Collins 2003
Work Incidents <ul style="list-style-type: none"> ♦ Disturbing incident in the last six months ♦ Incident involving children, ♦ Dealing with relatives of victims ♦ Handling dead bodies ♦ Dealing with people who are drunk 	Ambulance ” ” ” Police	Alexander 2001 Bennet 2005 ” ” Collins 2003
Organisational Stress <ul style="list-style-type: none"> ♦ Unpredictable work ♦ Tiredness at work ♦ Tension with colleagues ♦ Long working hours ♦ Not enough support from senior officers ♦ Subject to a complaint’s investigation ♦ Being at risk of Hepatitis or AIDS ♦ Not enough control over work ♦ Urgent requests preventing planned work ♦ Long-term sick leave ♦ Negative organisational factors 	Ambulance ” ” Police ” ” ” ” ” ” ” ” Coastguard	Bennet 2005 ” ” Houdmont 2016 Collins 2003 ” ” ” ” ” Board 2011 Smith 2012
Other <ul style="list-style-type: none"> ♦ Increased work/home conflict ♦ Retirement/medical retirement ♦ Low social support ♦ Less adaptive coping methods 	Ambulance Police Retired Police Coastguard Fire	Bennet 2005 Collins 2003 Black 2013 Kingdom 2011 Baker & Williams 2001, Brown 2002

Factors associated with increased likelihood of PTSD

Factors associated with increased likelihood of PTSD/PTSD symptoms	Emergency Responder Branch	Study
Demographics <ul style="list-style-type: none"> ♦ Being Female ♦ Divorced/separated 	Police Retired Police	Tehrani 2016 Black 2013
Work Incidents <ul style="list-style-type: none"> ♦ Serious accident ♦ Fire ♦ Explosion ♦ Non-sexual assault by familiar person ♦ Non-sexual assault by stranger ♦ Threatened with death by guns/knives ♦ Witnessing death ♦ Perceived threat to life ♦ Those involved in UK 7/7 bombings response and those with role at disaster scene ♦ Dissociation in response to trauma as coping strategy 	Retired Police ” ” ” Retired Police & Police Police Fire ” Ambulance ”	Black 2013 ” ” ” Black 2013, Green 2004 Green 2004 Kehl 2015 ” Misra 2009 Bennet 2005
Organisational Stress	Ambulance	Bennet 2005
Other <ul style="list-style-type: none"> ♦ Retirement not initiated by individual themselves (often medical retirement) 	Police	Black 2013

Appendix 6:

Systematic Review Methods: Emergency Responder Families

Search Strategy

A search of the literature was undertaken using the following approach:

- Scientific databases MEDLINE, EMBASE, PsychINFO, PILOTS, Web of Science, EBSCO, and CINAHL were systematically searched using the initial search terms: mental health AND wellbeing AND emergency responder AND families AND UK. Additional searches then expanded on this by adding in various synonyms and spelling variations.
- Bibliographies of articles found through the database searches were then hand-searched eligible papers added for review.
- Informal requests for literature relevant to the topic were made to those working in this field of study.

Titles and abstracts were reviewed and full text articles that were screened as relevant were obtained and reviewed against the following inclusion criteria:

- Papers dating from January 2000 - June 2019.
- English language papers.
- Families (i.e. spouses, partners, children, parents) of the following emergency responder populations: police, fire-fighters, paramedics, RNLI, Coastguard, mountain rescue, Internet Child Abuse Investigator (ICAT) officers, patrol officers, call-handlers, or other public safety roles (see next section for excluded populations).
- Papers containing primary data.
- Studies published in peer-reviewed journals and studies/reports deemed as 'grey literature'.
- Studies using quantitative or qualitative, or mixed methodologies.
- Outcomes of interest: mental health or wellbeing.
 - Mental health outcomes include common mental health disorders (depression and anxiety disorders); post-traumatic stress disorder

(PTSD); alcohol problems (e.g. hazardous drinking, misuse, abuse, dependence etc.); stress (e.g. organisational stress, traumatic stress reaction, burnout, secondary traumatic stress, compassion fatigue etc.).

- Wellbeing outcomes include positive relations with others, autonomy, purpose in life, personal growth; social support and relationships; satisfaction with life; employment status; short/long term sick leave; voluntary resignation; financial outcomes (e.g. debt); work-family conflict (WFC).

62 papers were included in the review.

Data Extraction and Analysis

Data from 62 papers were extracted into tables, which included information on author, title and date of publication, country of origin, responder population (i.e. firefighters, police officers, ambulance/ paramedics etc.), family relation (e.g. spouse, child, parent), overall sample size, sub-sample sizes (i.e. how many in each group etc.), study design, data collection method, response rate, topic area, mental health/ well-being measures (including references of instruments used and key variables measured). Data were also extracted including information on the means, standard deviations, and prevalence of mental health items (Extraction tables published in Appendices: link to website).

Studies were grouped into thematic areas defined by the search criteria topics and common broad themes arising in from the studies' findings. Quantitative, qualitative and mixed methods papers were analysed and integrated together. Studies assessing primary data from spouse/partner/children and Emergency Responder data on spouse/partner/children were analysed together. Studies assessing WFC and grey literature were analysed separately.

